Eccellenza café

Service Manual

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VKI TECHNOLOGIES INC.

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Carefully read this instruction manual before proceeding with the installation and operation of this equipment. Keep this manual in a safe place for future reference.

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Safety Information

Your safety is very important to us. It is imperative that you read and understand this safety information before proceeding with the installation, operation or servicing of this coffee maker.

This equipment must be used specifically for the purpose for which it is designed. The manufacturer is not responsible for damage or injury resulting from improper use of this equipment.

Always switch the machine power OFF and disconnect the service cord from the wall outlet when servicing this equipment, unless stated otherwise.

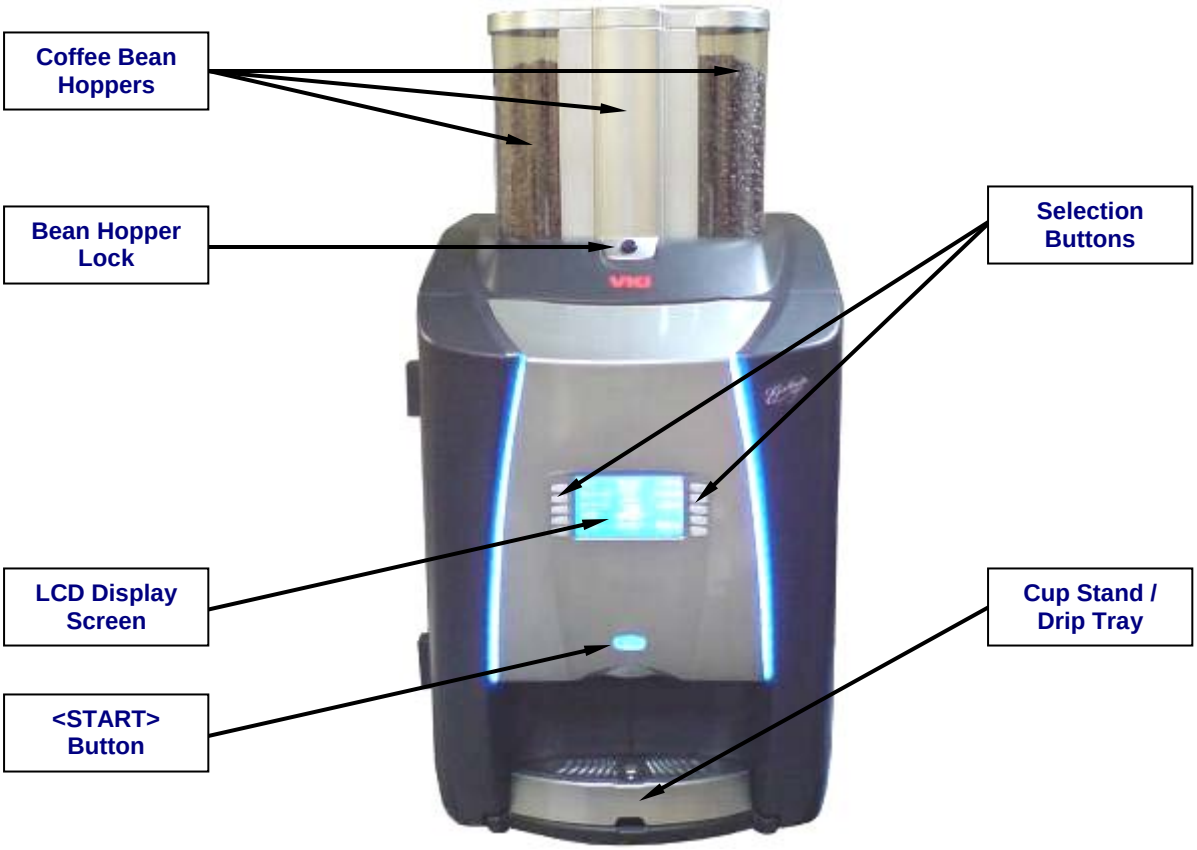
- This coffee maker is designed for indoor use **ONLY** and must ***never*** be installed outdoors.
- **The installation of this equipment must comply with all municipal, state / provincial, and federal electrical and plumbing codes.**
- **Installation and servicing of this equipment must only be performed by qualified personnel.** Do not attempt to install or service this equipment if you are not qualified as it may result in personal injury. There are no user-serviceable parts inside the equipment.
- **Do not** attempt to lift or move this equipment by yourself. Use a hydraulic lift (or similar) or have a colleague provide assistance.
- This equipment must be installed in a location with an ambient temperature between 5°C-35°C (40°F-95°F).
- The main water supply pressure must be between a **minimum of 20psi** and a **maximum of 100psi.**
- This equipment must be positioned so that the wall plug and the main power switch are both easily accessible.
- **Do not** connect the coffee maker to a voltage supply other than the voltage indicated on the serial number decal.
- **Do not** immerse this coffee maker or any part of this equipment in liquid.
- **Do not** install the equipment in an area where water spray is present.
- This coffee maker must be installed securely on a level surface. If it does not appear to be a stable location, select another installation location.
- Keep hands clear of the dispensing area at the front of the coffee maker. **Liquids being dispensed are extremely hot and can cause severe burns.**
- **Never** disconnect the coffee maker by pulling on the service cord, and never use the coffee maker if the service cord is damaged.

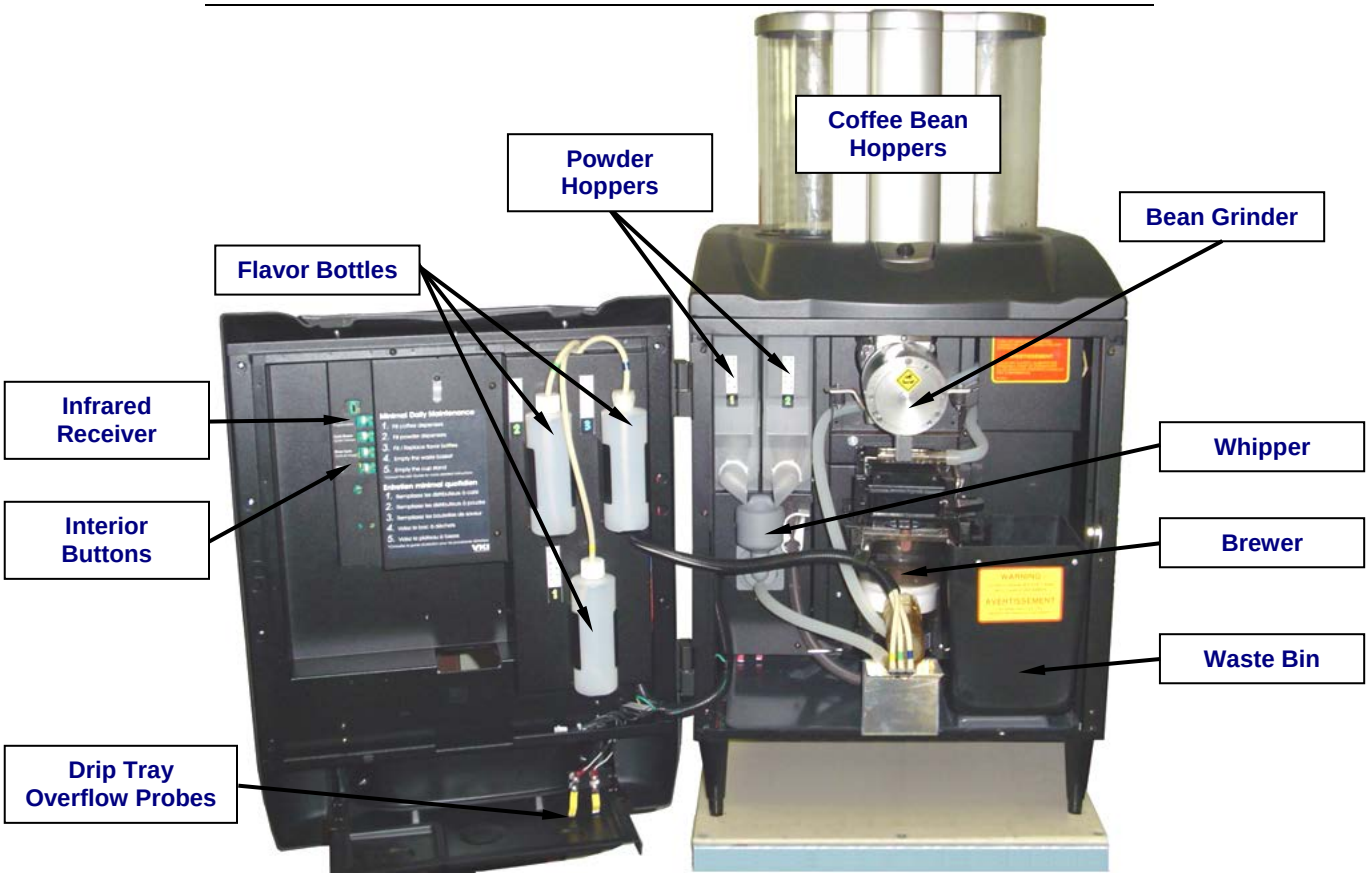
Safety Information

- If the service cord is damaged, **it must be replaced with a new service cord** that is available from your distributor or the manufacturer of this equipment.
- This equipment uses low voltage DC powered valves and motors. **Do not** connect components to a voltage supply other than the voltage indicated on their specifications.
- **Never** attempt to override the safety features incorporated into the equipment. They are there for your protection and should never be bypassed under any circumstances.
- Always switch the power off and disconnect the service cord when cleaning the interior of the coffee maker. Components inside the coffee maker can cause electrical shock resulting in personal injury.
- If the coffee maker is not working properly or appears to have a fault, switch off the power, disconnect the service cord and call an authorized technician immediately for service. **Only qualified personnel should perform service on this equipment.**
- Use caution when servicing the water heater or the outlet valves as they may be extremely hot and can cause severe burns.
- Use caution when working inside the coffee maker as there may be sharp edges on some components that can cause cuts.
- To prevent electrical shock, remove all jewelry (rings, watches, etc.) when servicing the coffee maker.
- **Do not** allow children to access this equipment. They are not aware of the potential dangers that exist.
- **Never** use ammonia based cleaners on machine surfaces as they will become discolored and/or damaged permanently. Use milder cleaning products, such as dish soap.

Unauthorized modifications made to this coffee maker can result in serious personal injury and/or damage to the equipment, and voids all warranties and certifications.

Equipment Overview





Rinse Cycles

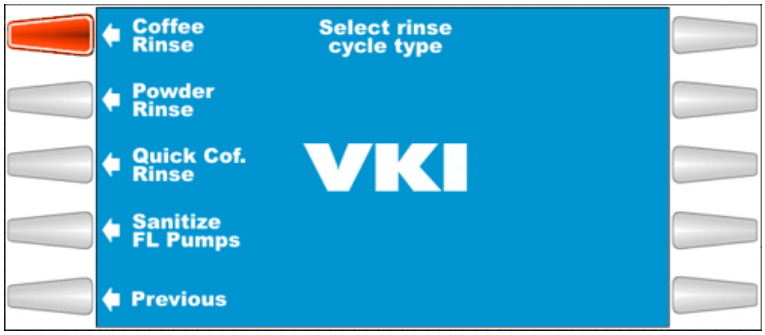
Brewer Rinse Cycle

WARNING: Make sure the waste container is under the brewer spout to catch the water coming from the brewer (throughout the complete rinse cycle).

1. Add VKI approved brewer cleaner to the brew chamber.
2. Press the "**RINSE CYCLE**" button on the control panel inside the front door.

To exit the rinse cycle if it was pressed accidentally, press the "**PREVIOUS**" button on the front display.

3. Select the type of rinse cycle required. For a brewer rinse, press the "**Coffee Rinse**" button on the front selection panel to begin the cycle.



To cancel the rinse cycle if it was pressed accidentally, switch OFF the machine using the main power switch at the rear.

a) The piston will move to the top of the cylinder, water will pour in, and the brewer will pause for about 5 minutes. During this time, the cleaner breaks down all the oils and stains that have accumulated in the brewer.

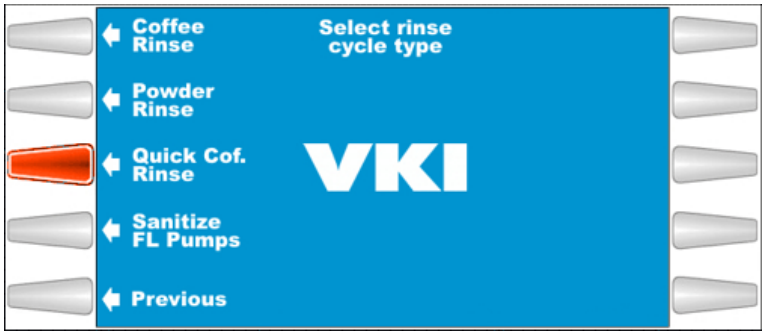
b) After the 5 minutes have elapsed, the brewer will cycle, dumping the cleaner into the waste container in the process. The brewer will then automatically cycle water seven consecutive times to rinse the cleaner from the brewer. After the rinse cycle is completed, the brewer will stop and the coffee maker will automatically exit the rinse mode.

c) After the rinse cycle is complete, brew a few cups of coffee to re-lubricate the brewer.

Quick Brewer Rinse Cycle

1. Press the "**RINSE CYCLE**" button on the control panel inside the front door.

2. Select the type of rinse cycle required. For a quick brewer rinse, press the "**Quick Cof. Rinse**" button on the front selection panel to begin the cycle.

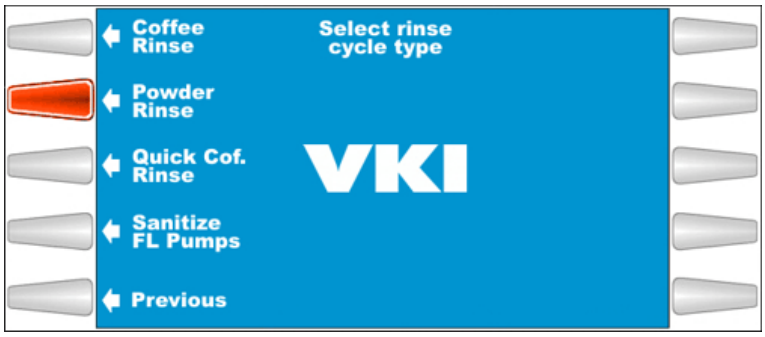


a) The machine will now basically go through the same process as preparing a coffee beverage, however, only hot water will be dispensed into the brewer (without coffee grounds). Repeat this process, if necessary.

Powder (Whipper) Rinse Cycle

1. Press the "**RINSE CYCLE**" button on the control panel inside the front door.

2. Select the type of rinse cycle required. For a whipper rinse, press the "**Powder Rinse**" button on the front selection panel to begin the cycle.



a) The machine will now dispense hot water through the whipper motor and tubing to rinse residual powder product that may have accumulated in the system. Repeat this process, if necessary.

Sanitize FL Pumps

Please refer to the "**Maintenance**" section of this manual for instructions on when and how to use this cycle.

Maintenance

To keep the Eccellenza Café running efficiently and at peak performance, the following maintenance procedures must be performed at their specified intervals. It is recommended that equipment maintenance be scheduled at a time that would be the least disruptive to your customers. Whenever possible, replace the components requiring maintenance with new or refurbished ones, and then refurbish the older components at your shop.

CAUTION: Never use ammonia based cleaners on machine surfaces as they will become discolored and/or damaged permanently. Use mild cleaning products, such as dish soap.

Daily

- **Empty the Drip Tray** – *empty the contents of the drip tray and rinse the tray and grill under clean running water.*
- **Empty the Waste Bin** – *empty the contents of the waste bin.*
- **Empty the Pan Tray** – *empty the pan tray and rinse the tray under clean running water.*
- **Refill the Coffee Hoppers, Powder Hoppers and Flavoring Bottles** – *top off the coffee and powder hoppers, as well as the flavoring bottles and reset the product counters.*
- **Perform a Whipper Rinse Cycle** – *this should be done immediately after refilling the powder hoppers to flush any product that may have fallen into the whipper.*
- **Wipe Exterior and Countertop** – *using the clean towel, wipe any coffee grounds and spills from the exterior of the machine and the countertop.*

Weekly

- **Wipe Interior Walls and Door** - *using the clean towel, wipe any coffee grounds and spills from the interior of the machine and the front door.*
- **Perform a Brewer Quick Rinse Cycle** – *for the weekly Brewer Quick Rinse cycle, it is not necessary to use any brewer cleaner. Simply flushing the system with the hot water will help to keep it clean.*
- **Clean the Brew Chamber** – *the brew chamber should be removed and thoroughly rinsed under warm running water.*
- **Clean the Grinder Spout** – *coffee grounds will accumulate in the grinder spout opening due to static electricity and moisture from the brewer. The grounds need to be removed or the grinder may jam. With the brew chamber removed, use a plastic stir stick to delicately remove any coffee accumulation from around the inner edge of the grinder spout.*

Monthly

- **Perform a Brewer Rinse Cycle** – *the full Brewer Rinse cycle requires the use of brewer cleaner to remove oils and stains from the brewer.*
- **Clean the Brewer Filter Screen** – *to minimize servicing time, replace the filter screen with one that has already been cleaned, then clean the stained filter screen at the shop and use it the next time a filter screen replacement is required.*
- **Clean the Whipper System** – *disassemble the whipper system and clean the components with hot water.*
- **Clean Hoses and Spouts** – *clean the exterior of all the product hoses and spouts with a wet towel.*
- **Thoroughly Clean the Interior** – *clean the interior walls, base and components with a clean wet towel.*

Every 6-12 Months

- **Inspect Electrical Wiring and Components** - *inspect all of the equipment wiring, terminals, connectors and electrical components (valves, motors, relays, element, etc.) for signs of wear, damage or overheating at connection points. Replace them, if required.*
- **Inspect Water Hoses and Tubing** - *inspect all plumbing connections, water hoses, tubing, clamps, fittings and water related components (valves, water tank, etc.) for signs of wear or damage. Replace them, if required.*
- **Clean the Coffee and Powder Hoppers** – *the hoppers should be emptied of product and given a thorough cleaning to remove stains and oils that may have accumulated inside them.*
- **Clean and/or Adjust the Grinder** – *remove the grinder cover and clean the area around the grinding heads. Should the coffee being ground look too coarse, the grinder may require a re-adjustment.*
- **Delime the Water Tank** - *to minimize servicing time, replace the water tank with a tank that has already been delimed, then clean the removed tank at the shop and use it the next time a tank replacement is required.*
- **Clean the Outlet Valves** - *to minimize servicing time, replace the outlet valves with valves that have already been cleaned, then clean the removed valves at the shop and use them the next time a valve replacement is required.*
- **Replace the Water Filter** – *the water filter should be replaced at least once a year, or when the water flow rate through the filter has decreased. This is an indication that the filter is starting to clog.*

Every 3 Years

- **Replace the following:** *heater element, thermal cut-off switch, external relays, all seals and gaskets and o-rings.*

Sanitization – Milk System

Should the Eccellenza Café's milk system require sanitization, all of the following components must be removed and soaked in a sanitizing solution for 30 minutes.

- Drip tray & grill
- Brewer spout
- Spout Support Plate (complete assembly) – this includes the milk spout, hot water spout, and flavor spouts
- Coffee hose
- Milk hose
- Hot water hose
- Brew chamber assembly
- Brewer screen
- Brewer (with screen removed)
- Whipper hose
- Whipper parts

NOTE: When ready for use, the end-use concentration of all quaternary chemicals in the solution is not to exceed 200ppm of active quaternary compound.

To perform a sanitization of the machine components that have an impact on the milk system, a large leak-proof container, a spray bottle and **SC Johnson J-512** sanitizer are required.

1. Fill the leak-proof container with a mixture of water and sanitizer – the mixture is **2ml of sanitizer per liter of water**.
2. Remove the components identified above from the machine.
3. Place them inside the container with the sanitizing solution. Let them soak for 5 minutes.
4. While the components soak, fill a spray bottle with the sanitizing solution (2ml sanitizer per liter of water).
5. Lightly spray the solution to the exterior of the machine, the interior walls and interior of the front door, the whipper blade and base, and to the counter-top. Do not wipe away the solution – let it dry naturally.
6. After their 5 minute soak, remove the components from the leak-proof container and rinse them with clean warm water.
7. Re-install all of the components back into the machine.

Sanitization – Flavor Pumps and Tubes

Should the flavoring system ever require sanitization, the following procedure must be performed. Please note that safety goggles and latex gloves should be worn at all times throughout this procedure.

NOTE: When ready for use, the end-use concentration of all quaternary chemicals in the solution is not to exceed 200ppm of active quaternary compound.

1. Remove the disposable flavor bottles from their supports.
2. Remove the silicone bottle caps from the bottles and completely immerse them in sanitizing solution (2ml of S.C. Johnson J-512 Sanitizer per one liter of water) for approximately 5 minutes.
3. Discard the old flavor bottles and their contents. These bottles must never be re-used for any purpose!
4. Fill a spray bottle with a solution of J-512 Sanitizer and clean water (2ml of sanitizer per liter of water) and thoroughly spray the outside of the flavor tubes (bottle side) with the sanitizing solution. Do not wipe the solution.
5. Fill three empty and clean flavor bottles (minimum 250 ml) with S.C. Johnson J-512 Sanitizer (2ml of S.C. Johnson J-512 Sanitizer per one liter of water). Fill the remainder of the bottles with clean water (up to the neck of the bottles). Do not install a silicone cap onto the bottles.

NOTE: If three empty flavor bottles are not available, you can use a clean one liter container (with 2ml of sanitizer per one liter of clean water). Insert all three inlet flavor tubes into this one container of sanitizing solution.

6. Place the bottles (without caps) onto their supports and insert the respective tubing into each of the bottles.
7. Place a leak-proof container (one liter capacity) directly underneath the dispensing spouts.
8. Press the "**Rinse Cycle**" button on the inside of the front door.
9. Press "**Sanitize FL Pumps**" on the front selection panel to activate the automated sanitizing procedure. All three pumps will cycle continuously until all of the solution in the bottles has run through the flavor system.
10. Remove the three empty bottles and rinse them thoroughly with potable water.
11. Once rinsed, fill the three bottles with potable water. Place the bottles (again without caps) onto their supports and insert the respective tubing into each of the bottles.
12. Press the "**START**" button on the front selection panel to activate the automated rinsing procedure. All three pumps will cycle continuously until all of the clean water in the bottles has run through the flavor system, rinsing any remaining sanitizing solution in the process.

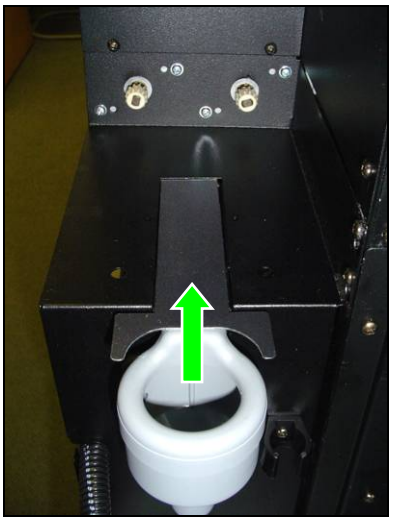
13. Once the cycle is completed, exit the rinse cycle mode by pressing on the "**Rinse Cycle**" button inside the door, and remove the three empty bottles from their supports.
14. Remove the silicone caps from their bath in the sanitizing solution and thoroughly rinse them with potable water.
15. Install the clean caps onto new flavor bottles and install the bottles onto their supports. You can now insert the respective tubing into each of the flavor bottles.
16. Fill a spray bottle with the sanitizing solution (2ml sanitizer per liter of water).
17. Remove the cup stand, the carafe tray and their grills and thoroughly spray each of them with clean sanitizing solution. Allow them to air dry – do not rinse and do not wipe.
18. Thoroughly spray the spout support plate and pump spouts (at the dispensing area) with the sanitizing solution. Allow it to air dry – do not rinse and do not wipe.
19. Thoroughly spray sanitizing solution onto the door shelf and lower wall on the inside of the door, as well as the complete dispensing area on the outside of the door. Allow it to air dry – do not rinse and do not wipe.

NOTE: The flavor bottles used in the Eccellenza Café are disposable. They should never be refilled and re-used – once empty, they should be replaced with fresh bottles.

Cleaning the Vacuum Duct (Powder System)

1. Remove the powder dispensers by turning both powder product spouts upwards, and lifting the front of the dispensers to pull them out.

2. Lift the front of the upper vacuum duct plate in the center of the dispenser base, and pull it towards you to remove it.



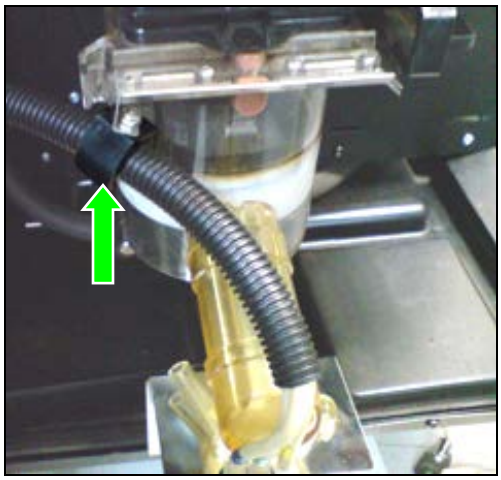
3. Lift the front of the lower vacuum duct plate and pull it towards you to remove it.

4. Rinse and **thoroughly dry** both the upper and lower vacuum duct plates.

To re-install the vacuum duct plates and powder dispensers, follow these same instructions in the reverse order.

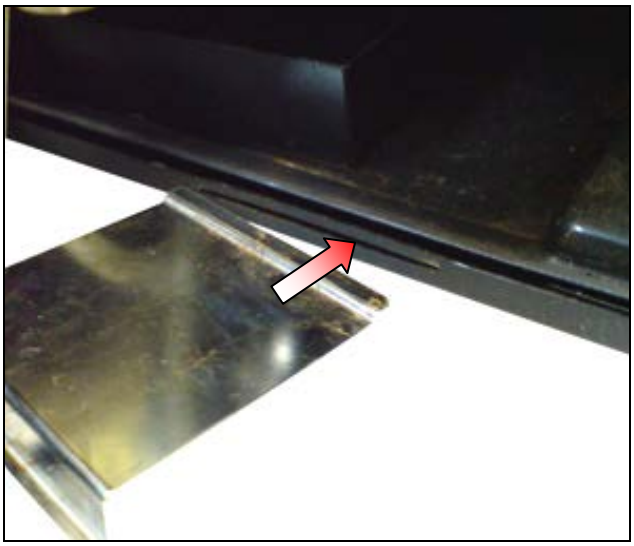
Removing and Installing the Spout Support Bracket

1. Remove the flavor tubes (convoluted tubing) from the clip on the brewer.

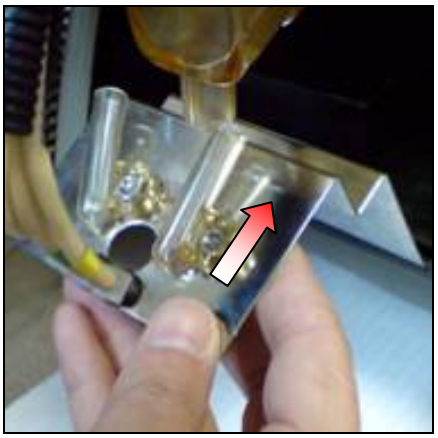


2. While lifting the brewer slightly, press down on the top of the spout support plate and pull it towards the front until it clears the brewer spout and can be removed.

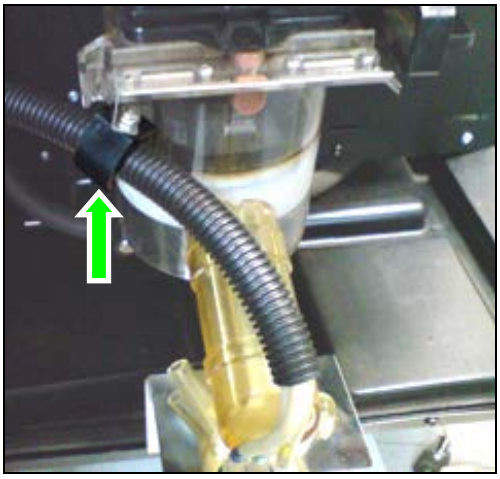
3. To re-install the spout support bracket, insert the bottom of the bracket into the slit on the front of the base.



4. While lifting the brewer, tilt the spout bracket upwards and to the back until it clears the brewer spout. If done properly, the brewer spout will enter the hole on the spout support plate and secure it in place.

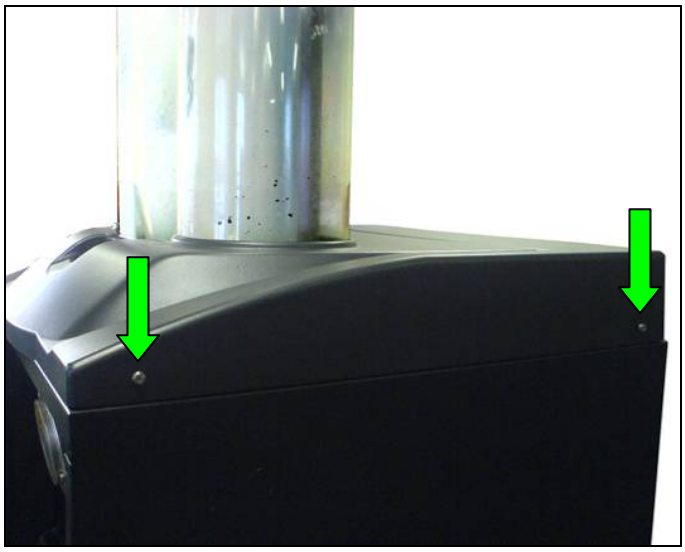


5. Reconnect the powder and hot water hoses to the spout support (if they were removed).
6. Insert the flavor tubes (convoluted tubing) into the clip on the brewer.

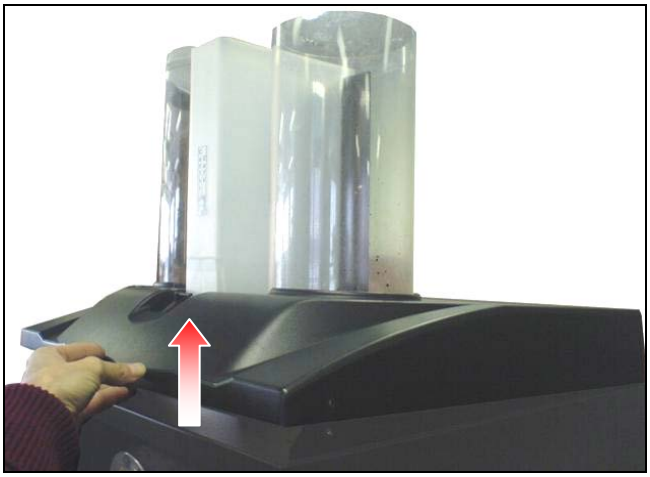


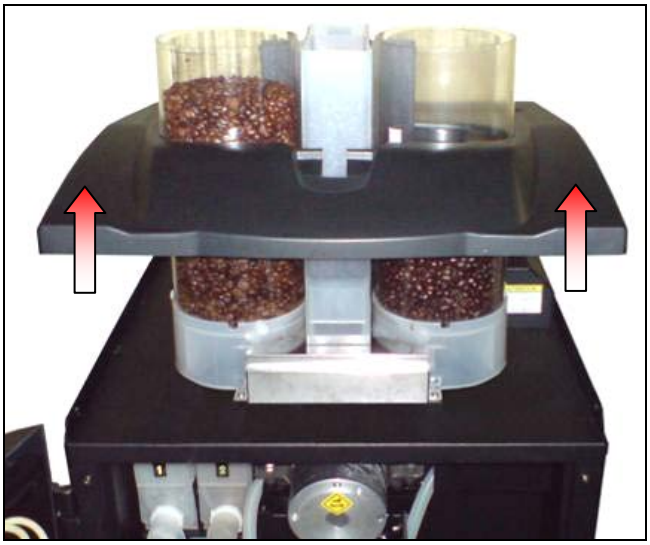
Removing the Side Panels

1. Remove the four screws securing the machine's top cover in place. There are two screws on each side of the cover.

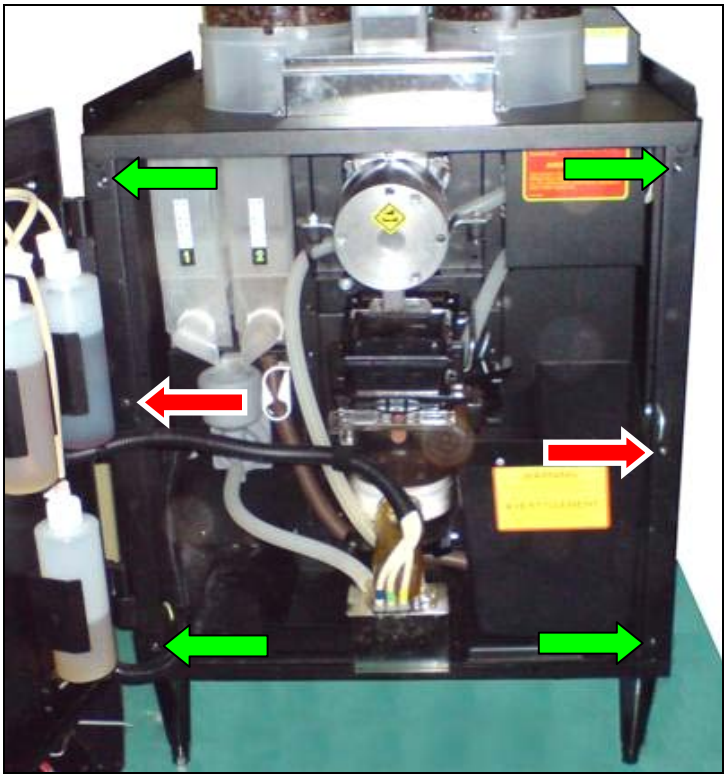


2. Lift the top cover up and over the coffee dispensers to remove it.





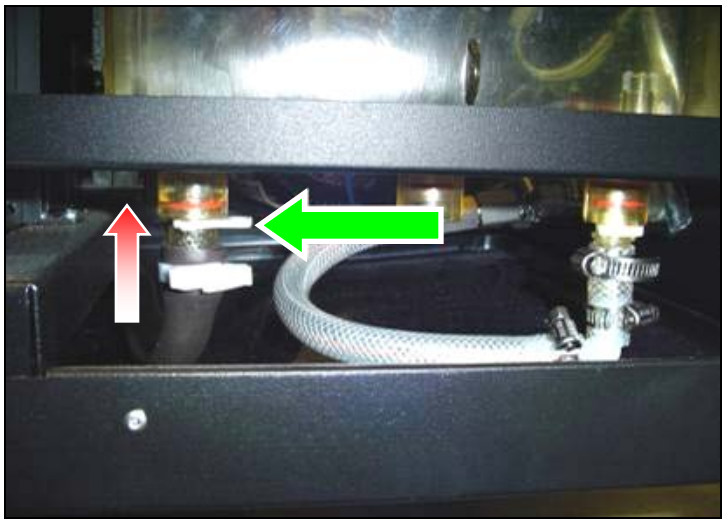
3. Three screws secure each panel at the front of the machine. When removing either panel, remove the screw at the center and loosen the upper and lower screws.



4. Pull the front of the panel outwards, and then towards the back to unlock it at the rear of the machine.

Draining the Water Tank

1. Remove the top cover and then the right side panel.
2. Remove the locking clip at the top of the drain fitting (located underneath the water tank), and push the fitting upwards to open it.



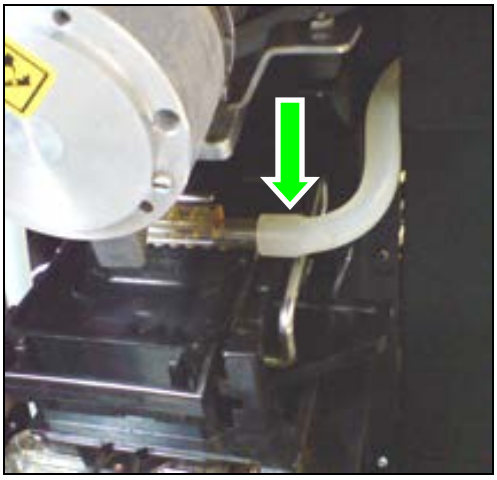
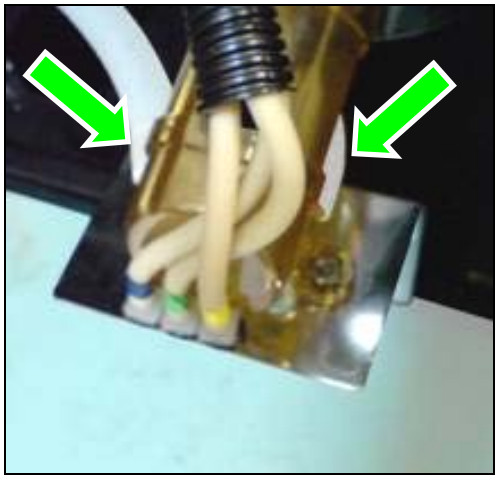
3. From the front of the machine, remove the drain hose from its clip (just beside the whipper bowl).

4. Place the hose inside a waterproof container and open the white clamp at the end of the hose. Water will start draining into the container. ***Use caution - the water may be extremely hot!***
5. Once emptied, close the clamp at the end of the hose and hook it onto its clip beside the whipper bowl.
6. Pull the water tank drain fitting down to close it and re-install the small white clip onto the drain fitting to lock it closed.
7. Re-install the right side panel onto the machine.

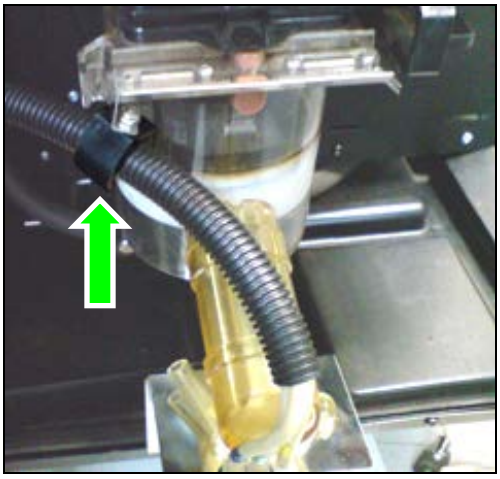
Replacing the Brewer

Removing the Brewer

1. Open the front door of the machine, and remove the waste bin.
2. Disconnect the hose from the brewer and the powder and water hose from the spout support.

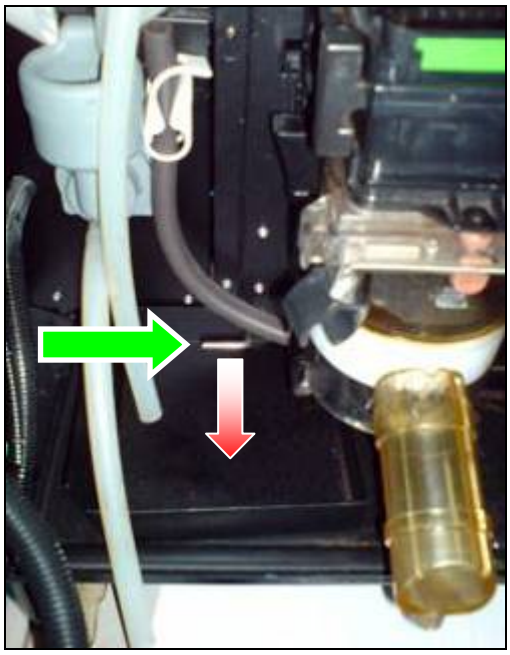



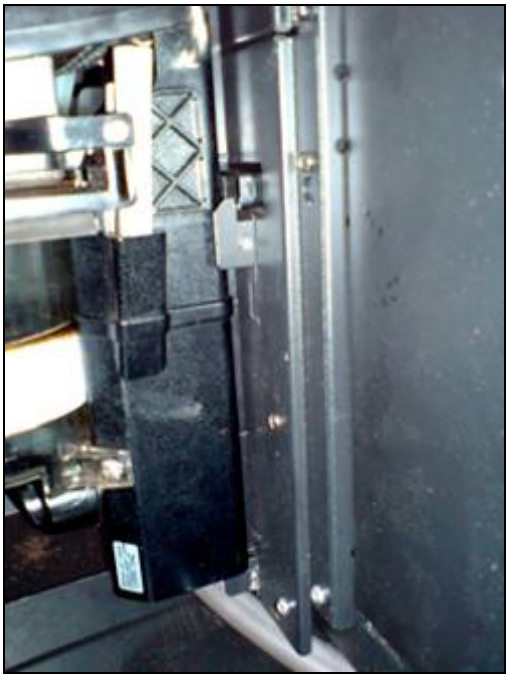
3. Remove the flavor tubes (convoluted tubing) from the clip on the brewer.



4. While lifting the brewer slightly, press down on the top of the spout support plate and pull it towards the front until it clears the brewer spout and can be removed.

5. Press down on the brewer release latch and pull the top of the brewer forward to release it.

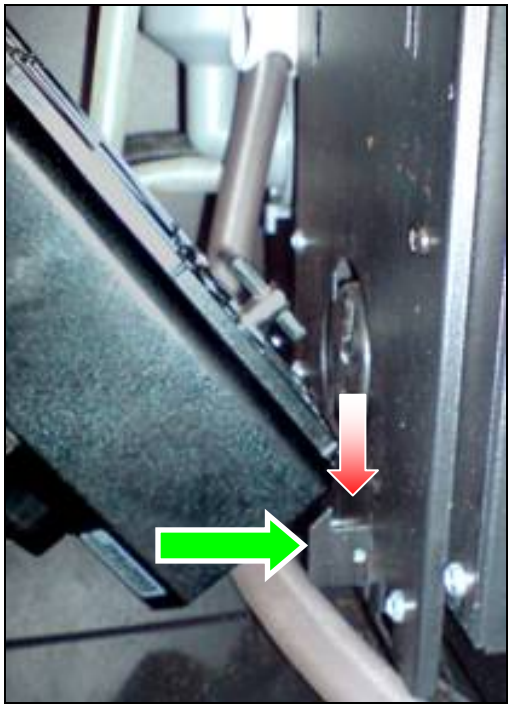




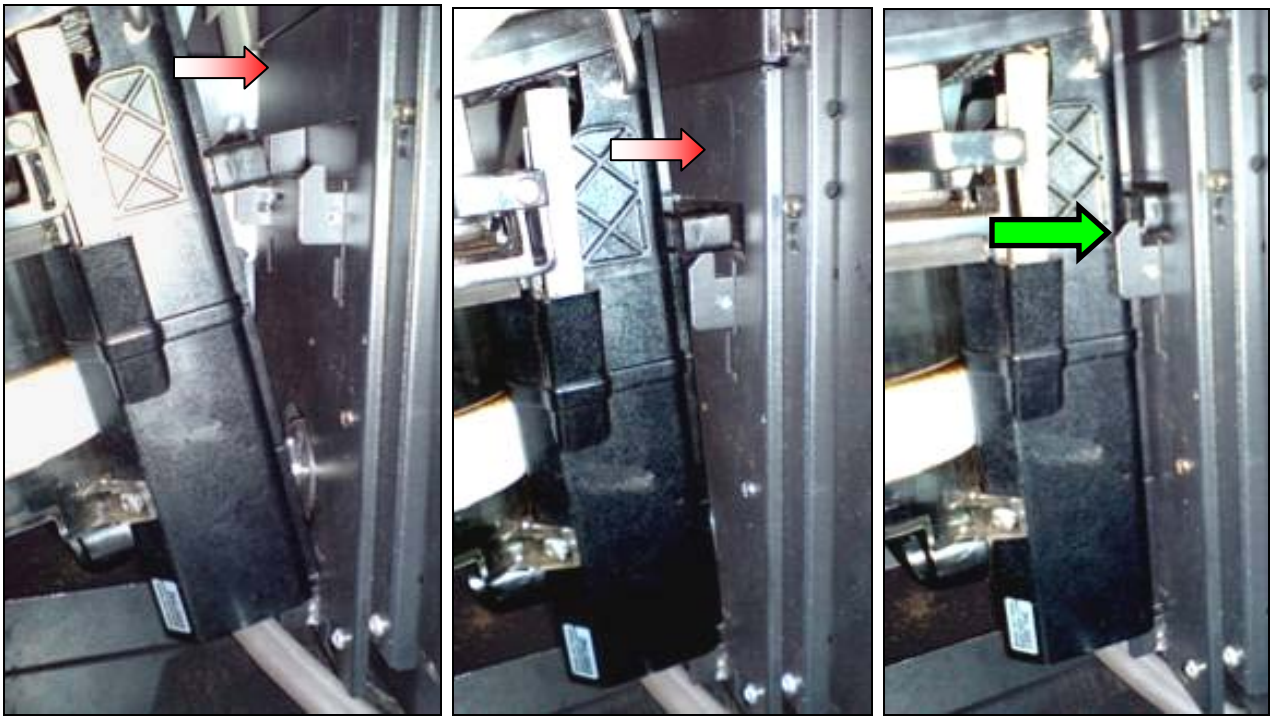
6. Remove the brewer.

Installing the Brewer

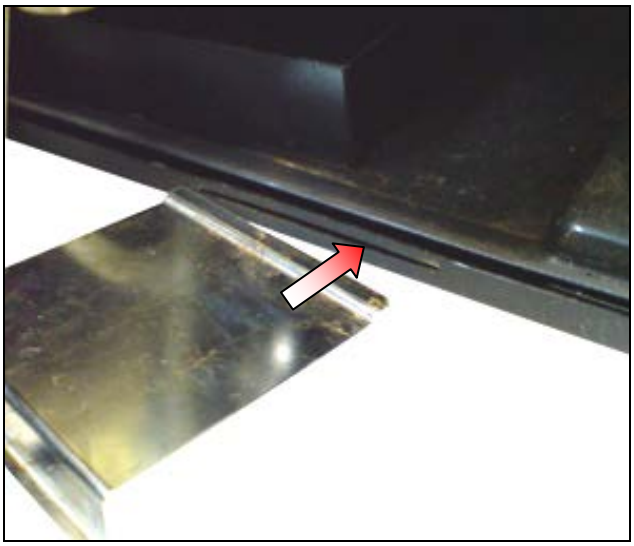
1. Make certain that the brewer pin is properly aligned with the brewer motor coupling. If it's not aligned, use the optional brewer crank tool to adjust the brewer pin.
2. Sit the brewer onto the two lower latches.



3. Push the top of the brewer towards the rear, making certain the brewer pin engages properly into the brewer motor coupling. Once coupled, push the top of the brewer towards the rear until it engages with the two upper latches. If done properly, the brewer will now be locked in place.

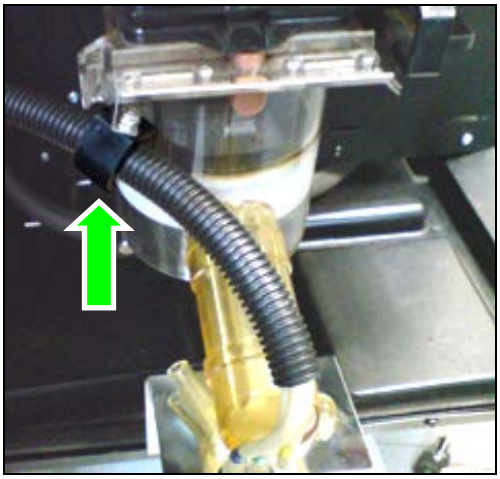


4. Insert the bottom of the spout support place into the slit on the front of the base.



5. While lifting the brewer, tilt the spout bracket upwards and to the back until it clears the brewer spout. If done properly, the brewer spout will enter the hole on the spout support plate and secure it in place.

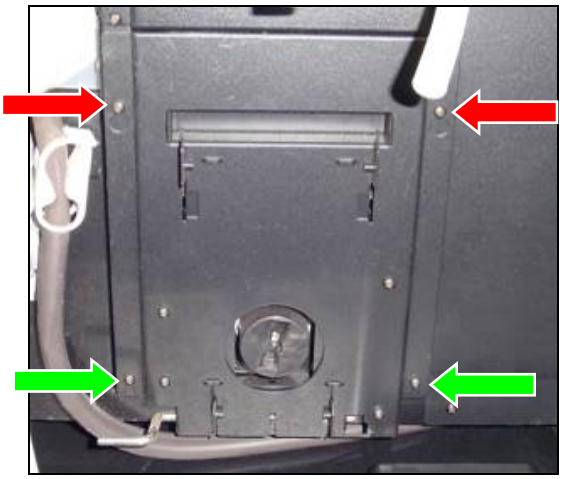
6. Reconnect the powder and hot water hoses to the spout support.
7. Insert the flavor tubes (convoluted tubing) into the clip on the brewer.



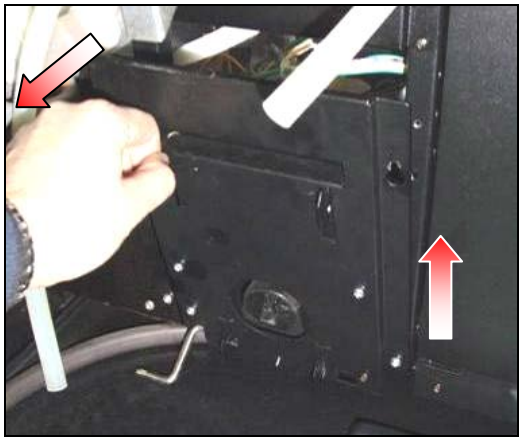
8. Reconnect the brewer hose.

Replacing the Brewer Motor

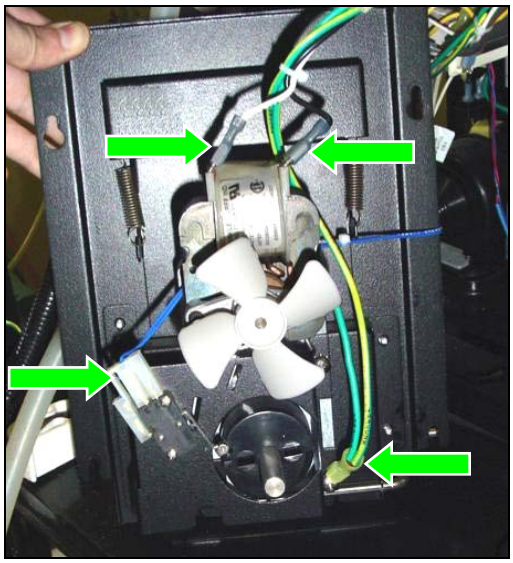
1. Remove the brewer from the machine.
2. Loosen the two lower screws, and remove the two upper screws securing the brewer bracket assembly to the machine.



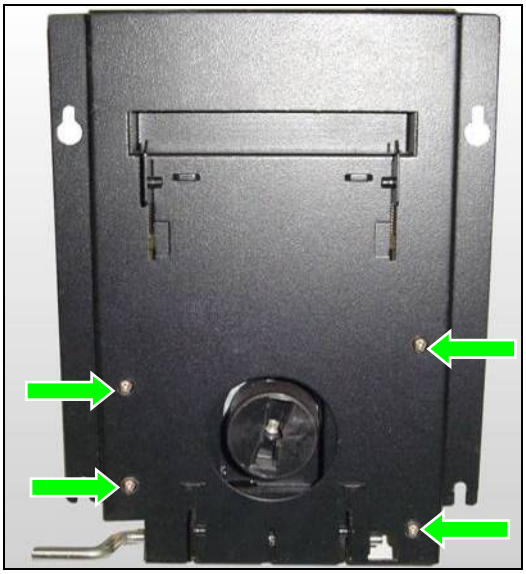
3. Pull the top of the brewer bracket assembly towards you, and lift the assembly to clear the two lower screws.



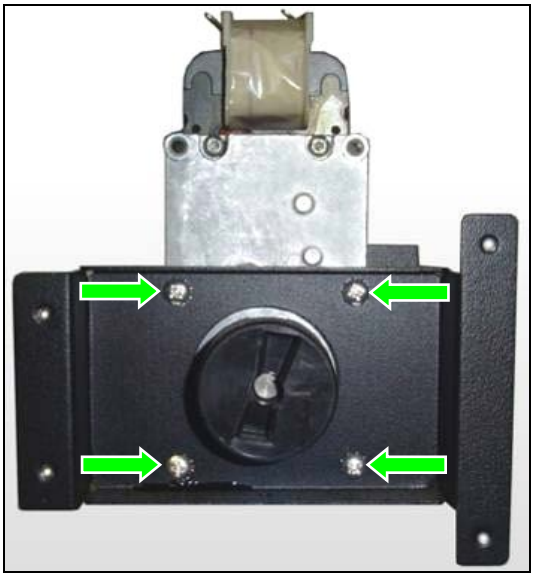
4. Disconnect the wiring from the brewer motor, the home switch and ground terminal.



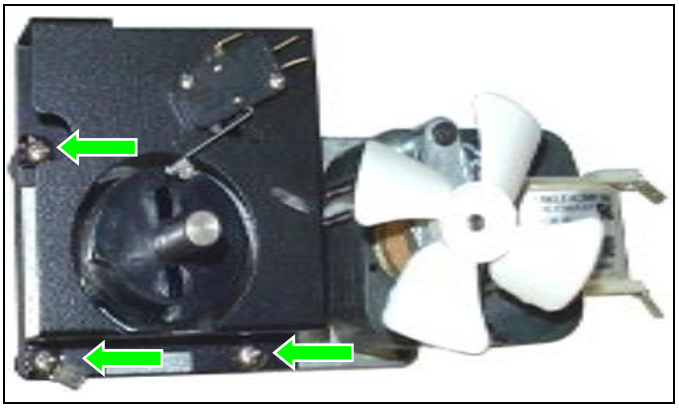
5. Remove the four screws securing the brewer motor assembly to the brewer bracket, and set the brewer bracket aside.



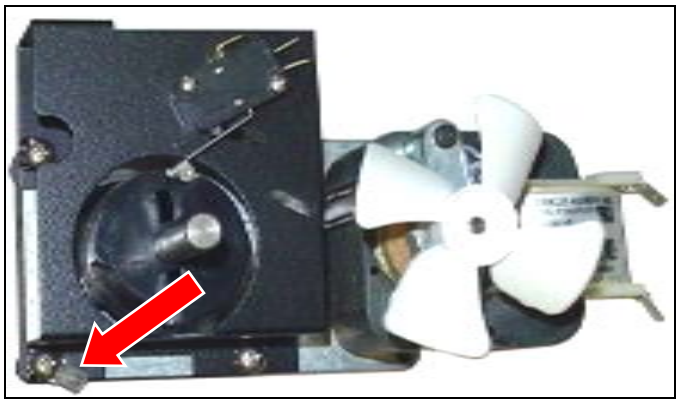
6. Remove the four screws securing the brewer motor to its mounting plate.



7. Remove the brewer switch plate assembly from the brewer motor by removing the three mounting screws. ***Be careful not to lose the small ground tab and lock washers – they must be re-installed onto the replacement motor.***



8. Install the brewer switch plate onto the replacement motor (three screws), making certain to **re-install the ground tab** and lock washers.



9. Install the mounting plate onto the new motor (four screws).
10. Install the brewer motor assembly onto the brewer bracket (four screws).
11. Reconnect the wiring to the brewer motor, the home switch and the ground terminal.
12. Re-install the brewer bracket assembly onto the machine (install the two upper screws, and tighten the two lower screws).
13. Re-install the brewer (remember to reconnect the brewer hose).

Replacing the Coffee Bean Dispenser

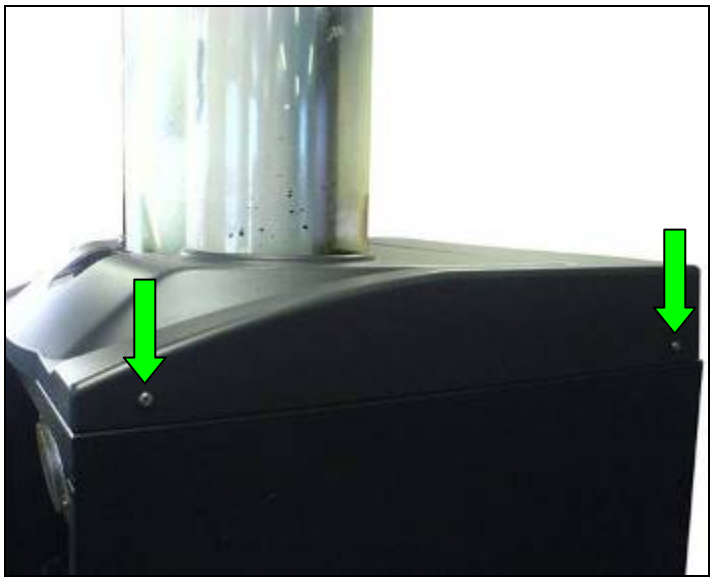
The following instructions will guide you through the process of removing any of the coffee bean dispenser motors in the Eccellenza Café.

1. Unlock the coffee bean hopper cover.

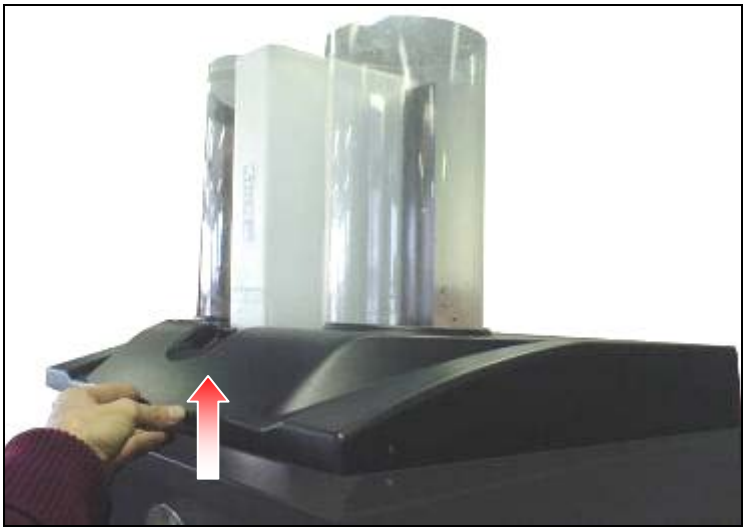
2. Lift the cover straight up to remove it, and set it aside.

3. Remove the individual hopper lids and set them aside.

4. Remove the four screws securing the machine's top cover in place. There are two screws on each side of the cover.

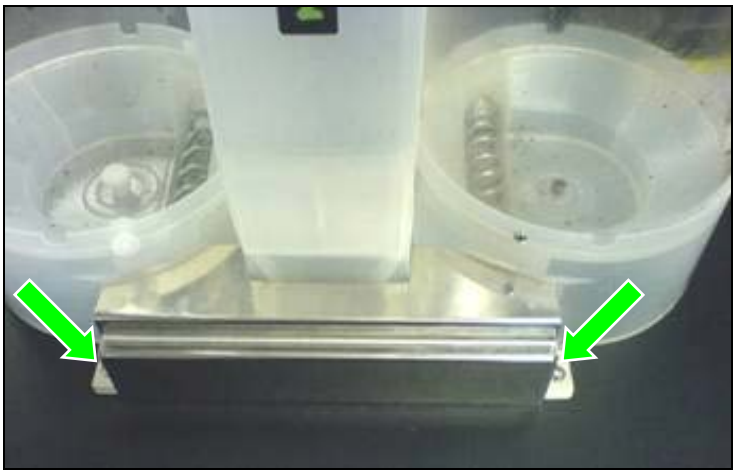


5. Lift the top cover up and over the coffee dispensers to remove it.

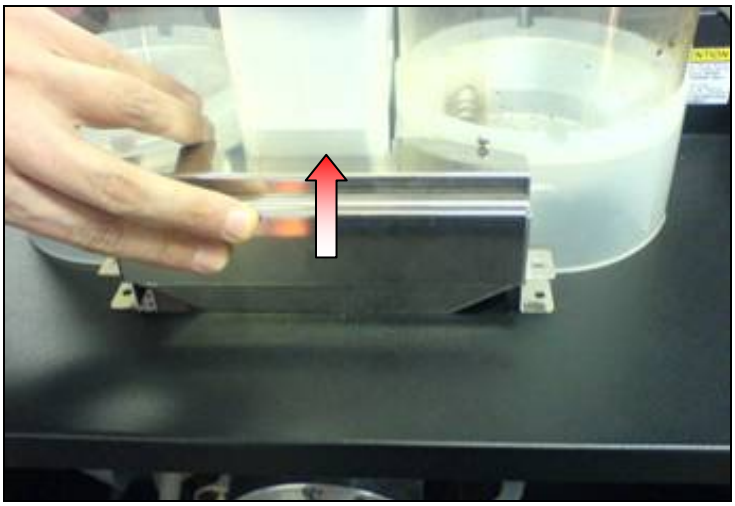


6. Remove the dispenser chute and cover plate.

   a. *Remove the two screws securing the chute and cover plate to the top of the machine.*

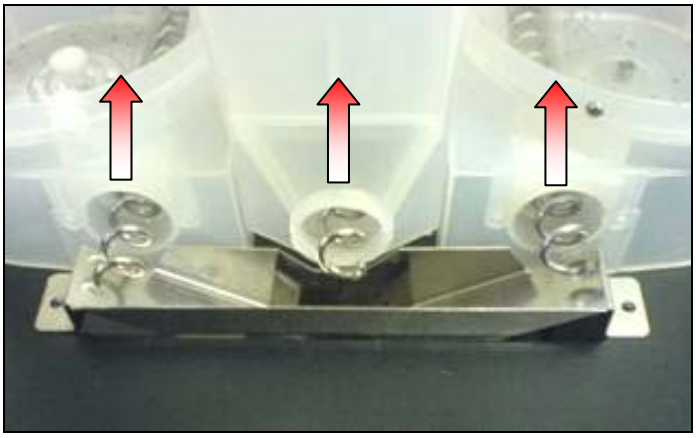


   b. *Remove the cover plate.*



7. Remove the three coffee bean dispensers.
    a. *Remove dispenser #1 (left) by lifting the front of the dispenser and pulling it towards you.*
    b. *Remove dispenser #3 (right) by lifting the front of the dispenser and pulling it towards you.*
    c. *Remove dispenser #2 (center) by lifting the front of the dispenser and pulling it towards you.*

    The center dispenser can only be removed only <u>after</u> the other two dispensers are removed. It must also be installed first when installing the three dispensers.

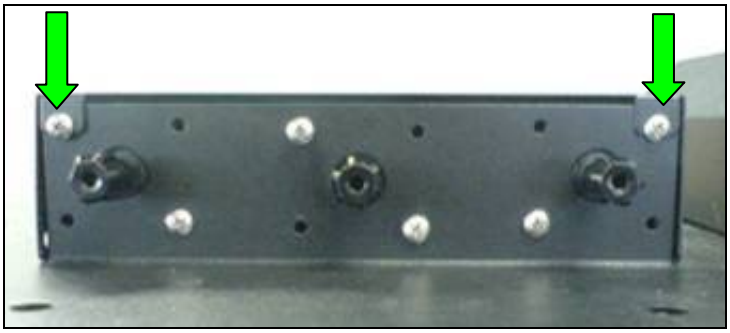


To install the replacement coffee bean dispenser, follow these same instructions in the reverse order.

Replacing the Coffee Bean Dispenser Motor

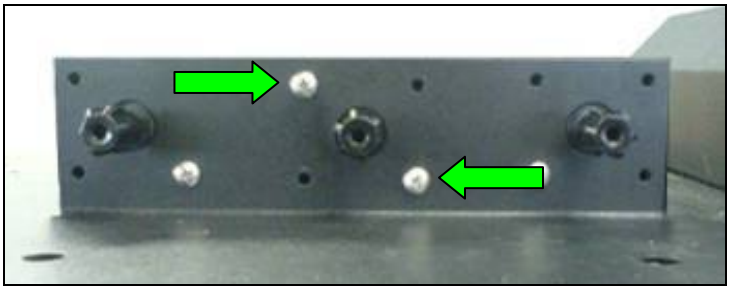
The following instructions will guide you through the process of removing any of the coffee bean dispenser motors in the Eccellenza Café.

1. Remove the bean dispensers (see page 30).
2. With the three dispensers removed, you will have access to the dispenser motor support and the cover, which must now be removed.
   a. *Remove the upper right and upper left screws to free the cover.*

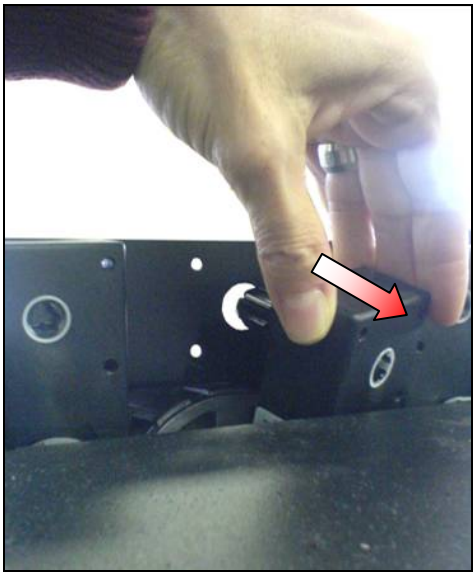


   b. *Tilt the front of the cover towards the rear and lift it up to remove it.*

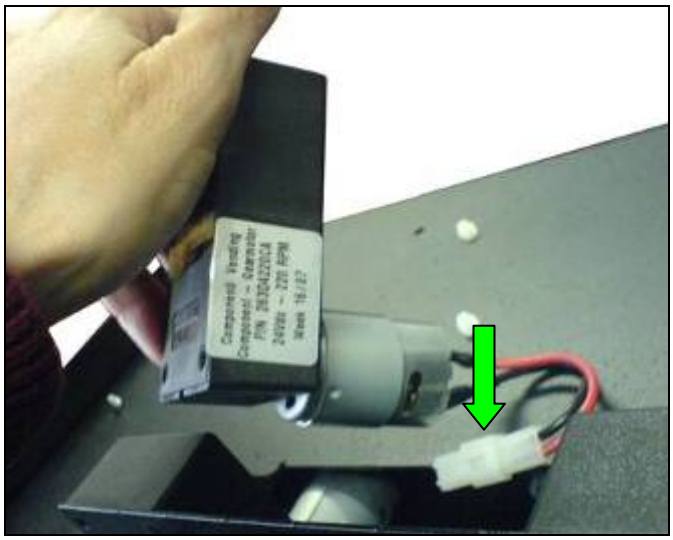
3. All three bean dispenser motors are now accessible and can now be easily removed. In this example, the center motor will be replaced.
   a. *Remove the screws securing the bean dispenser motor that needs to be replaced.*



   b. *Tilt the motor towards the rear, and lift it up and out from behind the motor support.*



c. Disconnect inline the power wire connection to the dispenser motor.



d. The motor can now be completely removed.

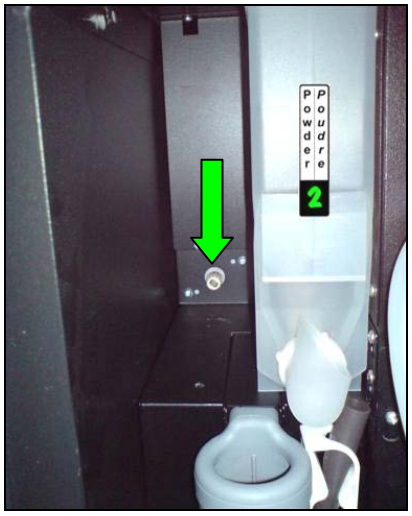
To install the replacement coffee bean dispenser motor, follow these same instructions in the reverse order.

Replacing the Powder Dispensers

1. Turn both powder product hopper spouts upwards.

2. Lift the front of the powder dispenser and pull to remove it.

3. Insert the new dispenser (already filled) onto the dispenser base making certain the coupling on the dispenser engages with the coupling on the dispenser motor.

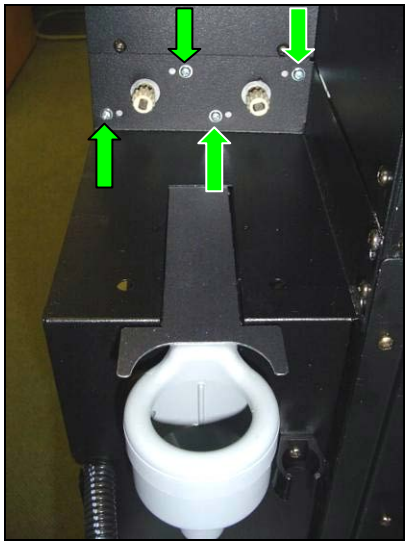


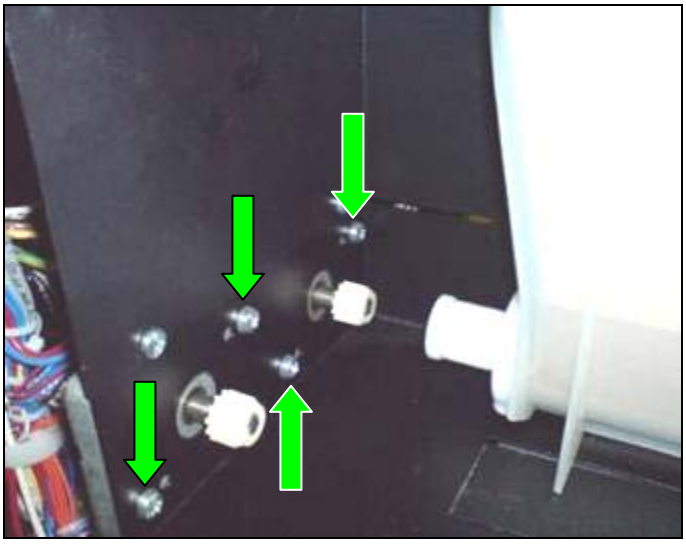
4. Lower the front of the dispenser and lock it in place – a pin at the bottom of the dispenser must enter a hole in the dispenser base, locking it in place.

5. Turn the spouts downwards (to their original position) and brew several cups from the dispenser that was replaced to prime the dispenser, and to test its operation.

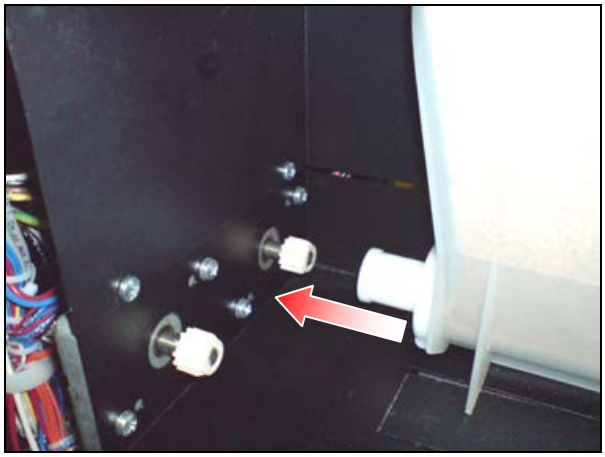
Replacing the Powder Dispenser Motors

1. Open the front door and remove the milk and chocolate powder dispensers. The milk dispenser is on the left and the chocolate on the right.
2. Remove the top cover, and then the left side panel of the machine.
3. Remove the two screws securing the motor that requires replacing.





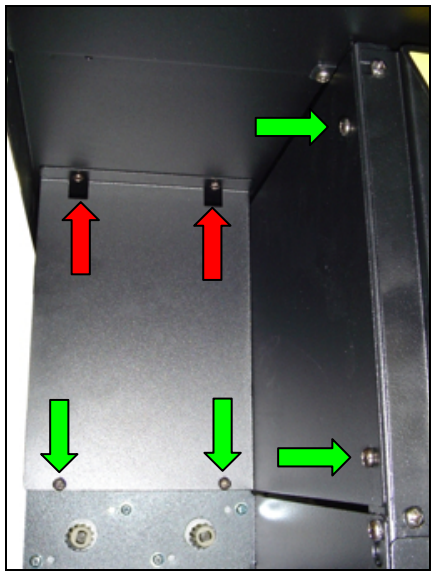
4. Remove the motor from the support.
5. Disconnect the green ground wire from the motor.
6. Disconnect the white and black power wires from the motor (one of each per motor).
7. Connect the white and black power wires, and the green ground wire to the new motor.
8. Align the motor onto the support and secure it in place using two screws.
9. Re-install the two powder dispensers onto the support, making certain that the coupling on the motors engage with the coupling on the dispensers.



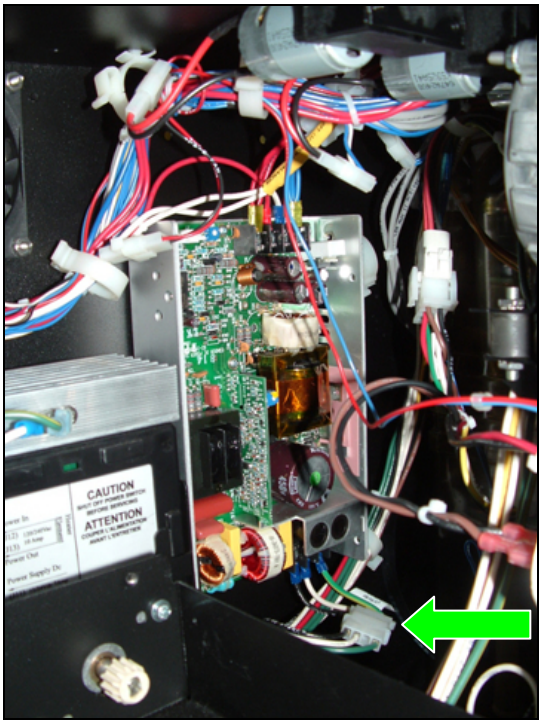
10. Re-install the left side panel onto the machine.

Replacing the Power Supply

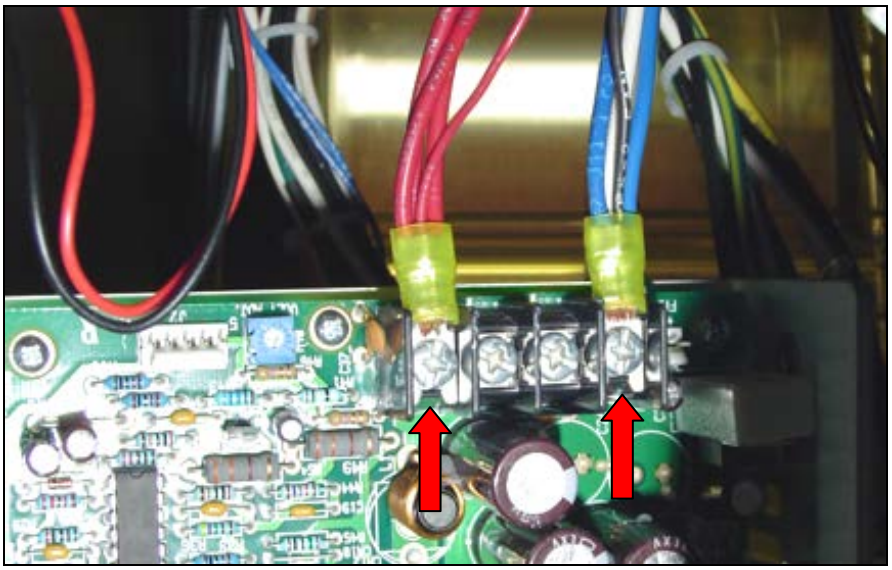
1. Switch the machine power off and disconnect the service cord.
2. Remove the top cover.
3. Remove the left side panel.
4. Remove the milk and chocolate powder dispensers.
5. Remove the wall behind the powder dispenser area.
    a. *Loosen the two upper screws.*
    b. *Remove the two lower screws and the two side screws.*



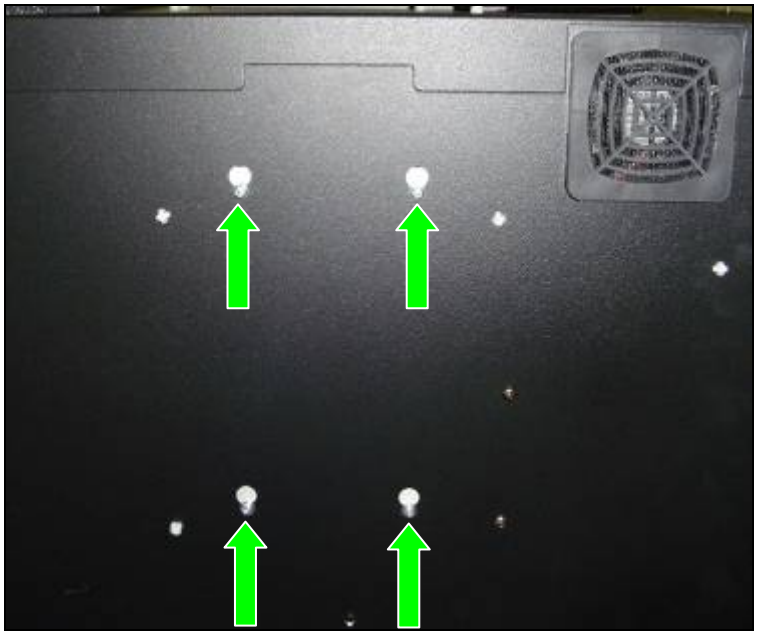
6. Disconnect the inline power connector at the bottom of the power supply.



7. Remove the wiring at the top of the power supply by loosening the screws on the terminal block enough to pull the wiring terminals off of the screws. ***Depending on the model of Eccellenza Café, there may be either two or four wires to remove.***



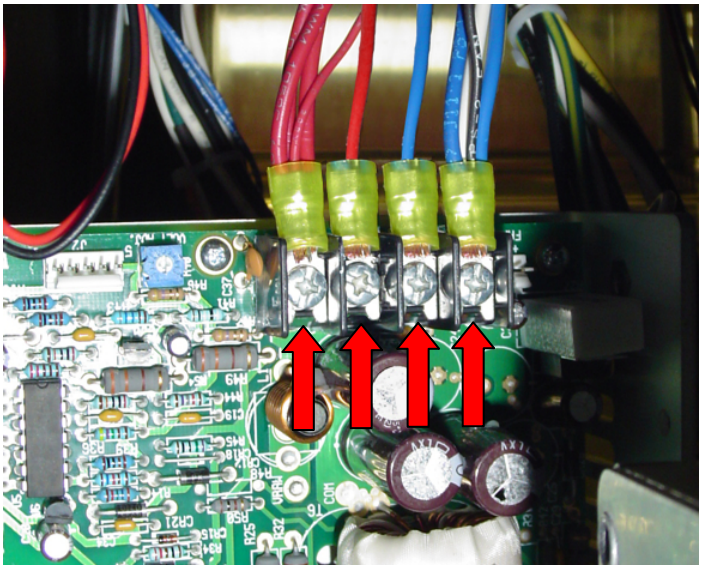
8. From the outside of the machine, loosen the four screws that secure the power supply to the rear wall of the machine.



9. From the inside of the machine, lift the power supply until the screws are clear of the keyhole slots, and remove the power supply.
10. Install four screws onto the new power supply, but do not tighten them. There should be enough clearance between the screw head and the power supply to clear at least one thickness of sheet metal.
11. Install the new power supply to the rear wall by sliding the screws into the keyholes slots. Tighten all four screws to secure the power supply to the rear wall.

12. Reconnect the inline wiring connector at the bottom of the power supply.

13. With the four screws loosened on the terminal block at the top of the power supply, insert the wiring terminal under the screws and tighten the screws to secure the terminals in place.

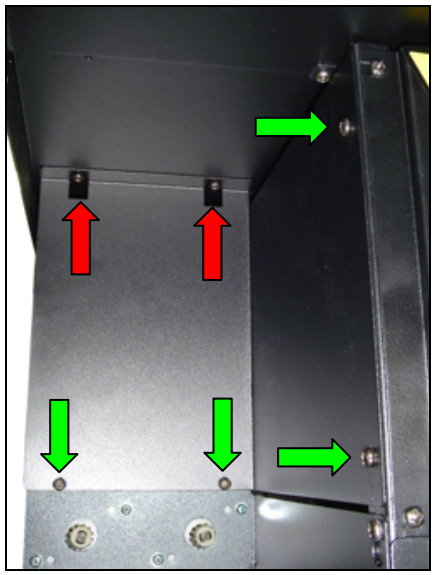


a. *Terminal Screw **#1** – **Red wire bundle***
b. *Terminal Screw **#2** – **Red wire** (for changer unit)*
c. *Terminal Screw **#3** – **Blue wire** (for changer unit)*
d. *Terminal Screw **#4** – **Blue wire bundle** (includes a white and a black wire)*

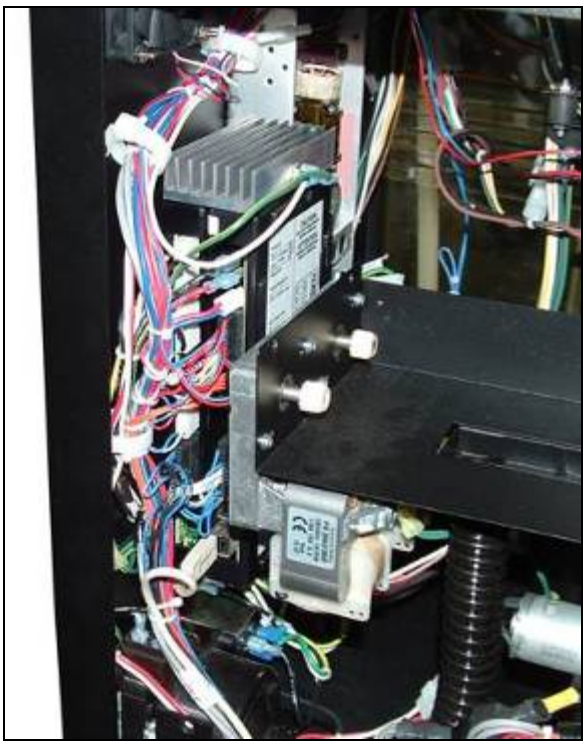
14. Re-install the powder wall and the powder dispensers.
15. Re-install the machine's left side panel and its top panel.
16. Reconnect the service cord to the wall outlet.
17. Switch the machine power on and test the equipment operation.

Replacing the Control / Options Boards

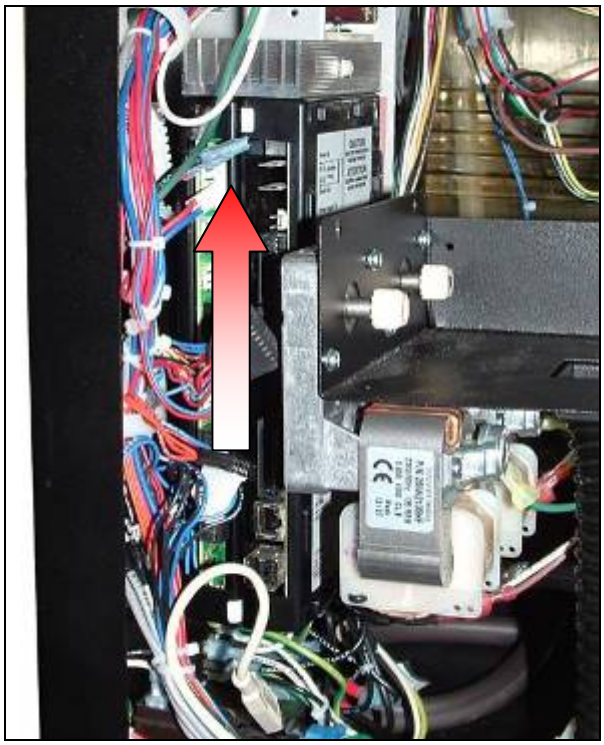
1. Switch the machine power off and disconnect the service cord.
2. Remove the top cover.
3. Remove the left side panel.
4. Remove the milk and chocolate powder dispensers.
5. Remove the wall behind the powder dispenser area.
    a. *Loosen the two upper screws.*
    b. *Remove the two lower screws and the two side screws.*

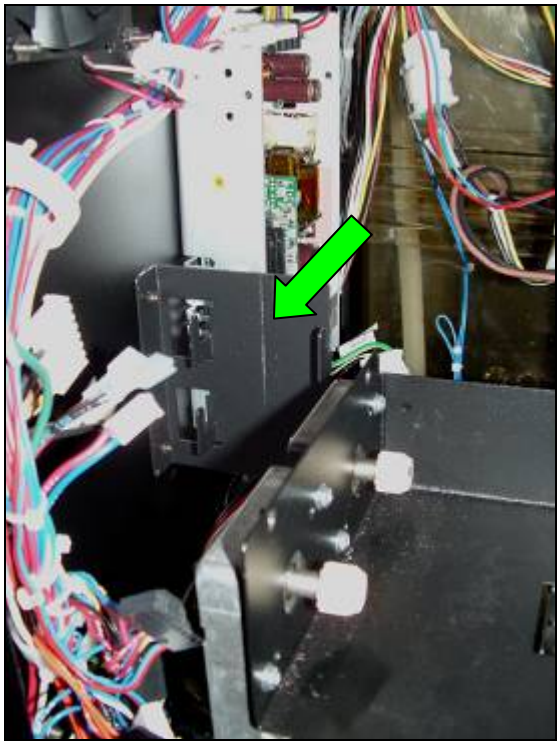


6. Disconnect all of the wiring harness connectors from the control board / options board assembly. Also disconnect the ground wires from the tab on the control board heat sink.

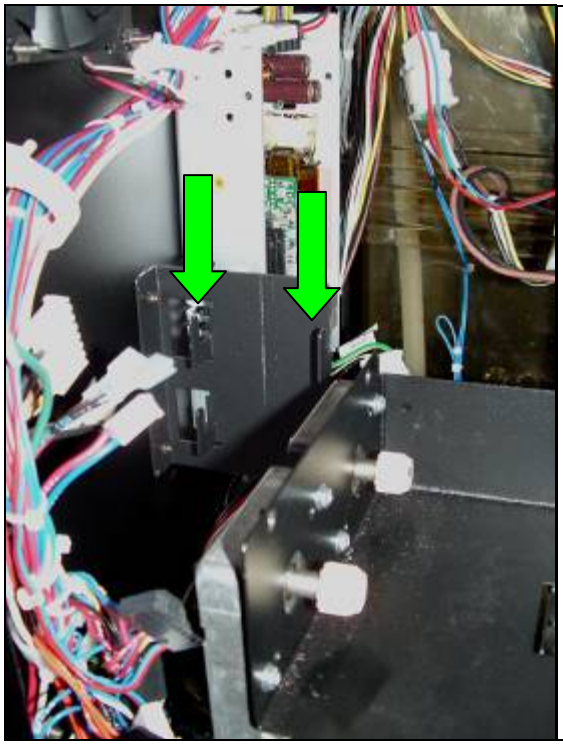


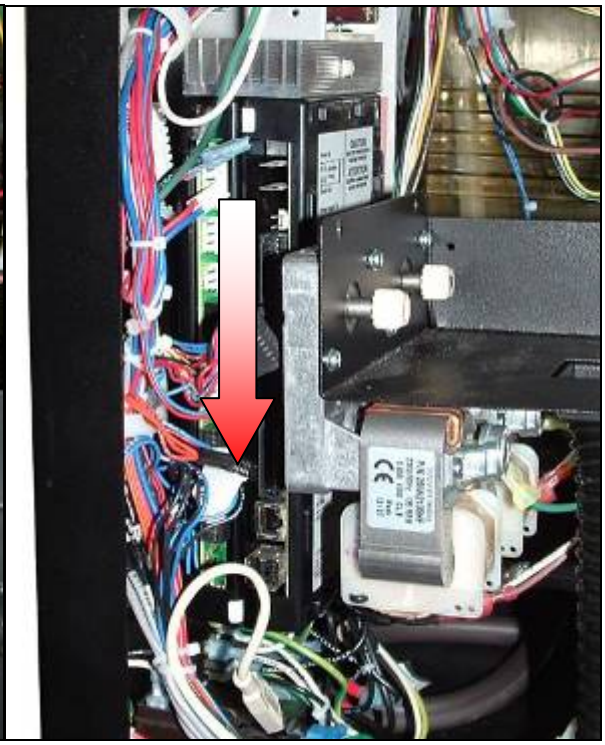
7. Lift the control board / options board assembly upward until it clears the board support bracket, and remove the board assembly.





8. Align the tabs on the new control board / options board assembly with the tabs on the board support bracket, and push down on the board assembly to lock it in place.

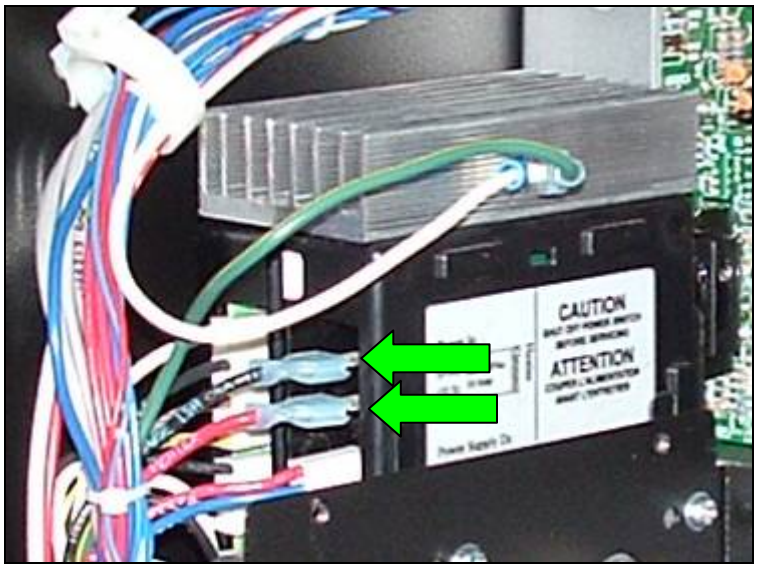




9. Reconnect all of the wiring harness connectors to the control board / options board assembly, including the ground wires to the tab on the control board heat sink.

NOTE: The wiring connectors are matched with their respective connectors on the board assembly, reducing the likelihood of making connection errors. Make certain to push the wiring connectors firmly into the board connectors, ensuring that they are locked in place.

10. When reconnecting the single black and single red wires, the black wire connects to J-12 and the red connects to J-13.



11. Once all of the wiring connections are made, re-install the powder wall and the powder dispensers.
12. Re-install the machine's left side panel and its top panel.
13. Reconnect the service cord to the wall outlet.
14. Switch the machine power on and test the equipment operation.

Replacing the LCD Display, Expansion Board, Selection Buttons

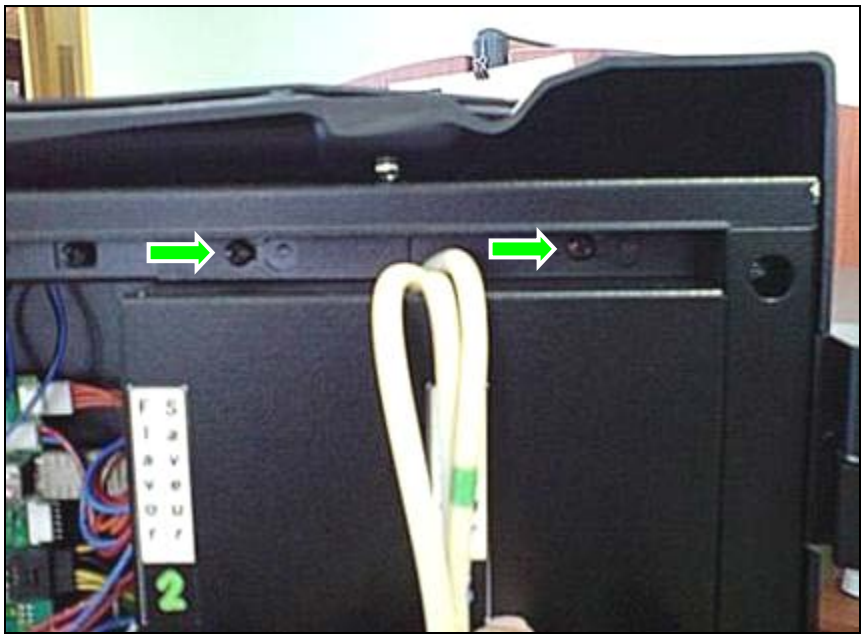
The following procedure will guide you through the process of replacing the LCD screen and the selection buttons (located on either side of the LCD screen).

1. Open the front door of the machine.
2. Remove the expansion board cover.
    a. *Remove the two screws securing the expansion cover to the door.*

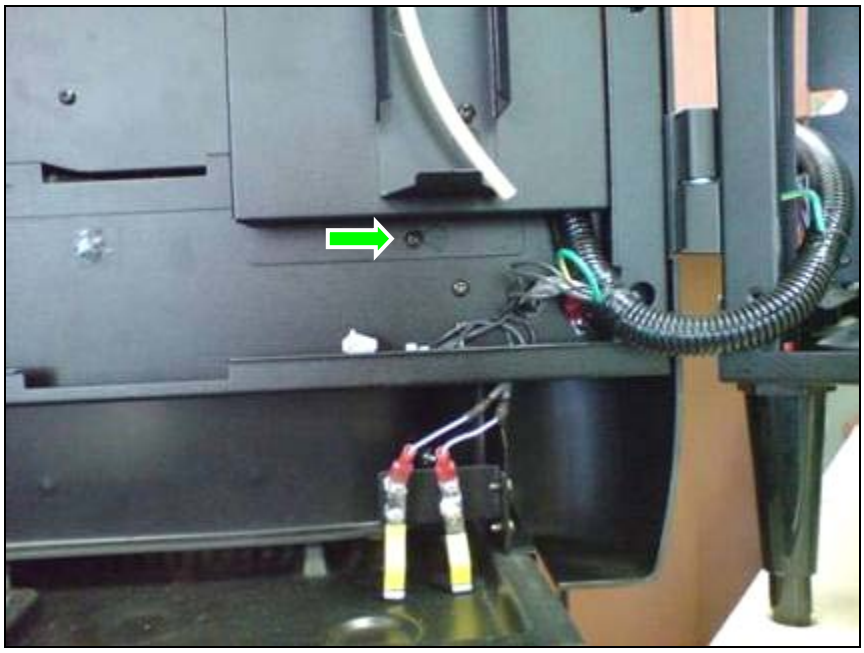
Minimal Daily Maintenance
1. Fill coffee dispensers
2. Fill powder dispensers
3. Fill / Replace flavor bottles
4. Empty the waste basket
5. Empty the cup stand
Entretien minimal quotidien
1. Remplissez les distributeurs à café
2. Remplissez les distributeurs à poudre
3. Remplissez les bouteilles de saveur
4. Videz le bac à déchets
5. Videz le plateau à tasses
VKI

    b. *Pull the right side of the cover outwards and towards the right. This will free the left side of the cover from its slots in the door.*

3. Remove the flavor pump cover.
    a. *Remove the flavor bottles from their supports on the pump cover.*
    b. *Loosen the two screws at the top of the cover.*

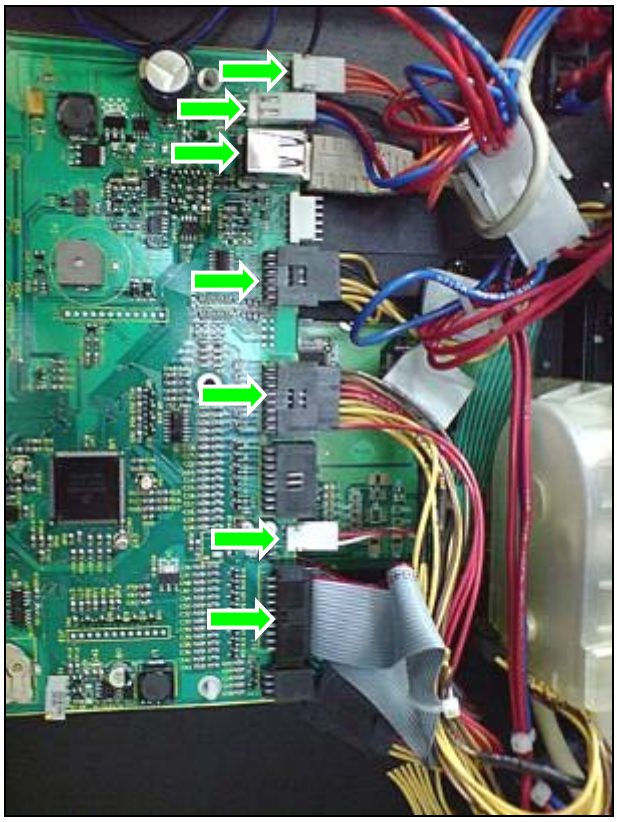


    c. *Loosen the one screw at the bottom of the cover.*

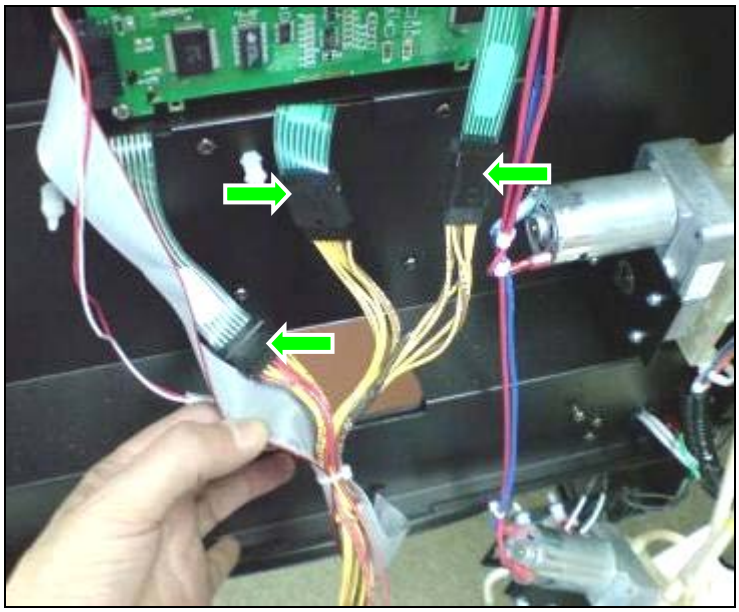


    d. *Slide the cover to the left until it clears the screws and pull it straight out to remove it.*

4. Remove the expansion board.
   a. *Disconnect all of the wiring connectors from the expansion board.*

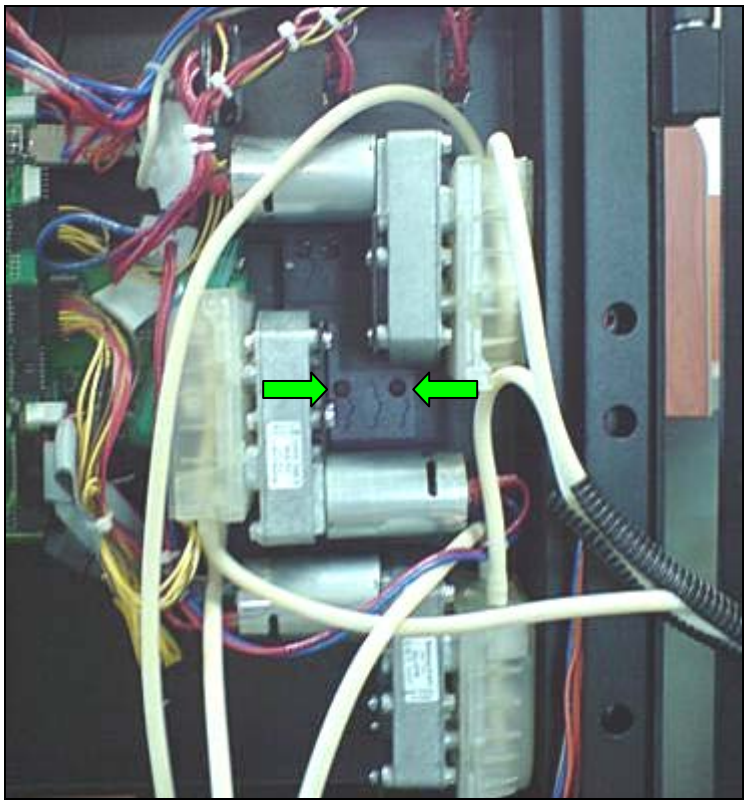


   b. *Disconnect the three translucent flat cables going to the selection button panels and the "**START**" button.*



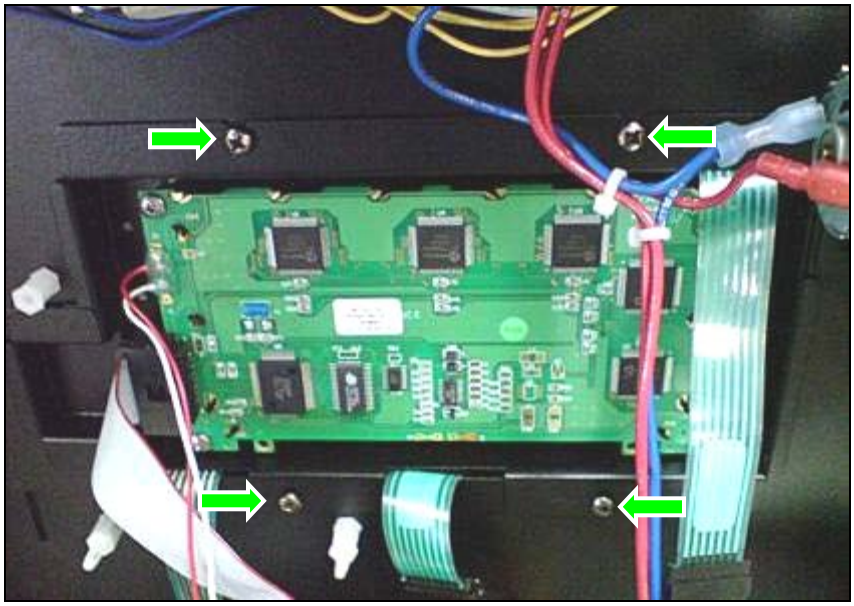
   c. *Remove the expansion board. Depending on the version of machine you have, the expansion board is either secured with screws or small clips. If it is secured with screws, remove the screws. If it is secured with clips, compress the center tab of each clip and lift on the board to release it.*

5. Remove the center flavor pump.
    a. *Loosen the two screws that secure the pump to the door.*



    b. *Lift the pump until it clears the two screws, and remove it. This will give you access to the LCD screen.*

6. Remove the LCD screen from the front door.
    a. *Loosen the two top screws securing the screen to the door.*
    b. *Remove the two bottom screws securing the screen to the door.*

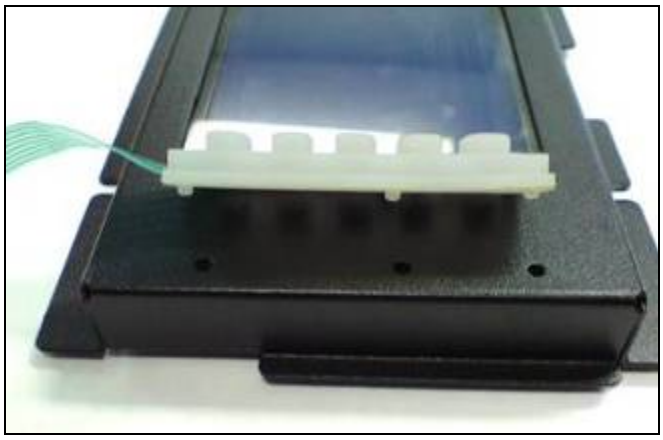


    c. *To remove the screen, pull the bottom of the screen towards you and down, until the screen clears the top screws.*

7. Remove the rubber selection button panel from the side of the LCD screen. The panel is secured to the LCD screen support by an adhesive backing.
    a. *Lift a corner of the rubber selection panel until the adhesive peels from the screen support.*

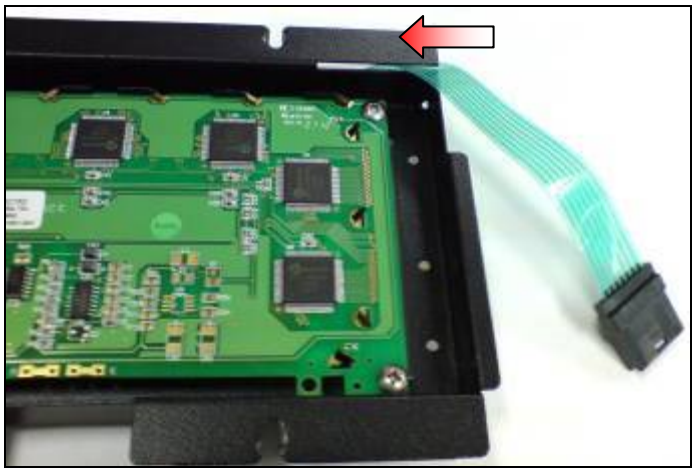
    b. *Carefully peel the complete selection button panel from the screen support to avoid leaving any adhesive behind.*

8. Install the new rubber selection button panel onto the LCD screen support.
    a. *Peel the backing from the adhesive on the rear of the selection button panel.*
    b. *Align the three tabs on the selection button panel with the three holes on the LCD screen support.*



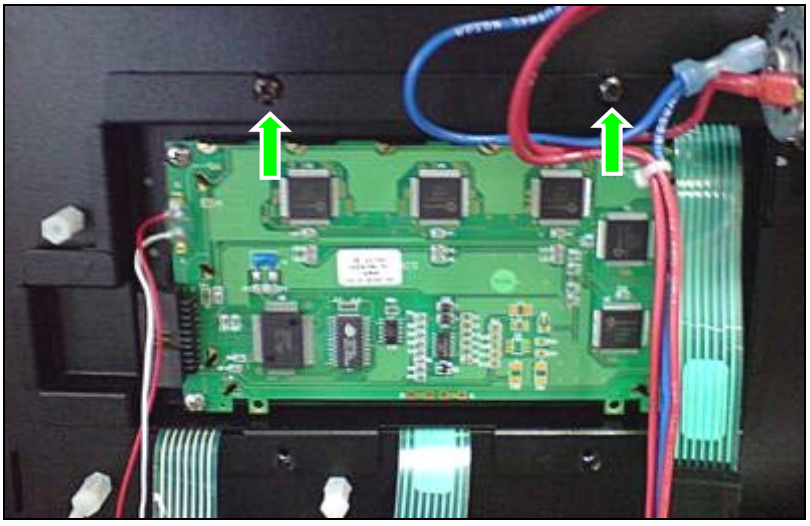
    c. *Once aligned, press firmly on the selection button panel so that it sticks to the LCD screen support.*

d. Pass the selection button panel's flat cable through the slot on the LCD screen support so that the connector is on the inside of the support.

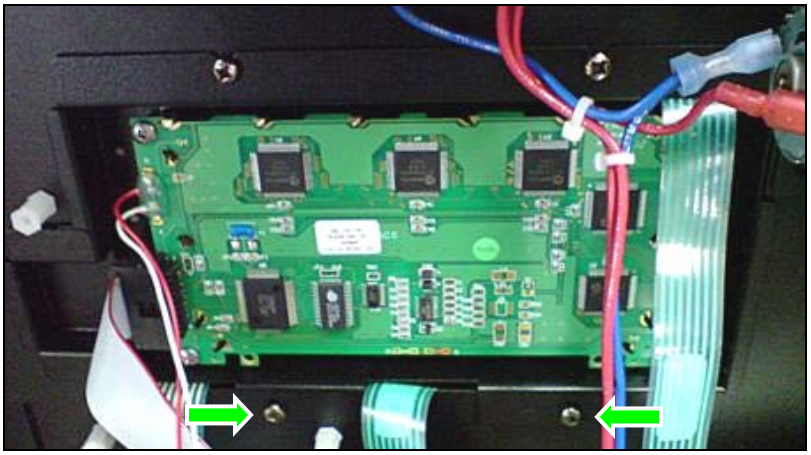


9. Reinstall the LCD screen onto the front door.

a. Slide the top of the screen bracket under the two loosened screws above the LCD screen opening in the door. Make certain to route the other two flat cables at the bottom of the LCD screen.

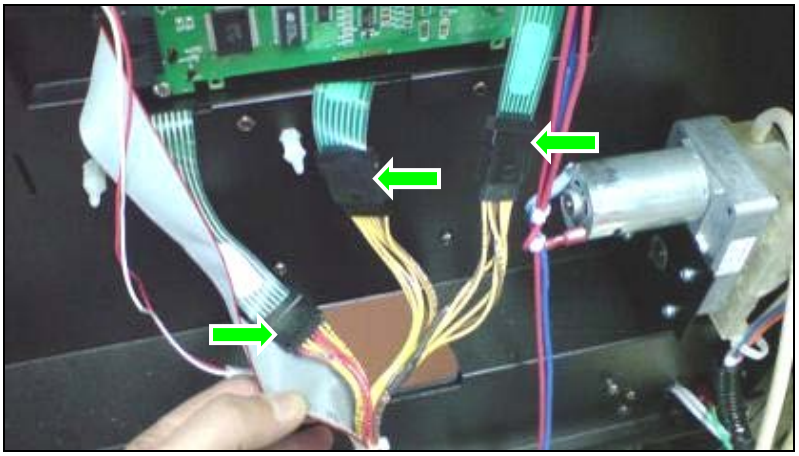


b. Secure the bottom of the screen to the door using two screws.



c. Tighten the two screws at the top of the screen.

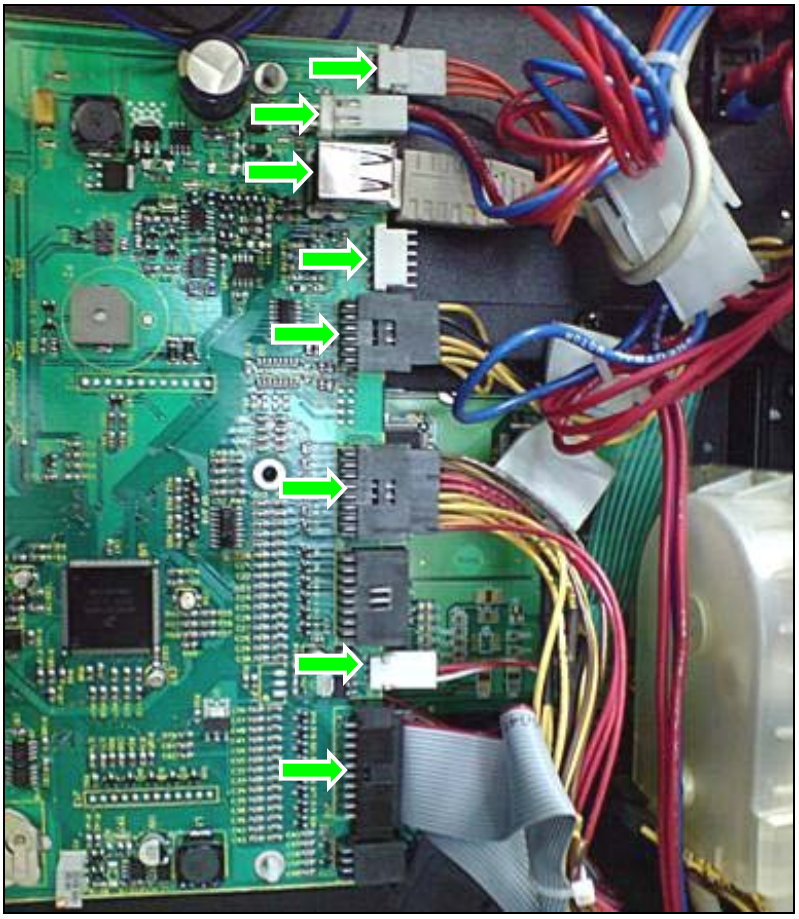
d. *Reconnect the three flat cables going to the "**Start**" button and selection button panels.*



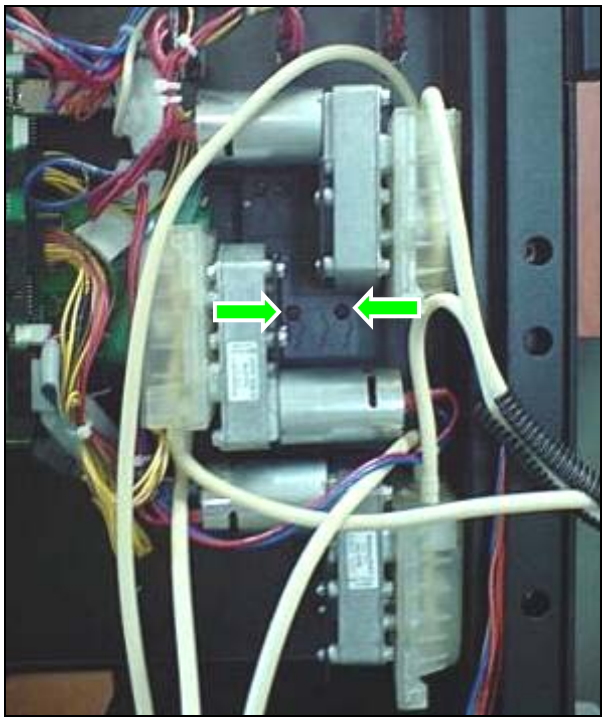
10. Reinstall the expansion board onto the door.

a. *Depending on the version of machine you have, the expansion board is either secured with screws or small clips. If it is secured with screws, install the screws. If secured with clips, slide the circuit board over each clip and gently press it onto the clips to secure it to the door.*

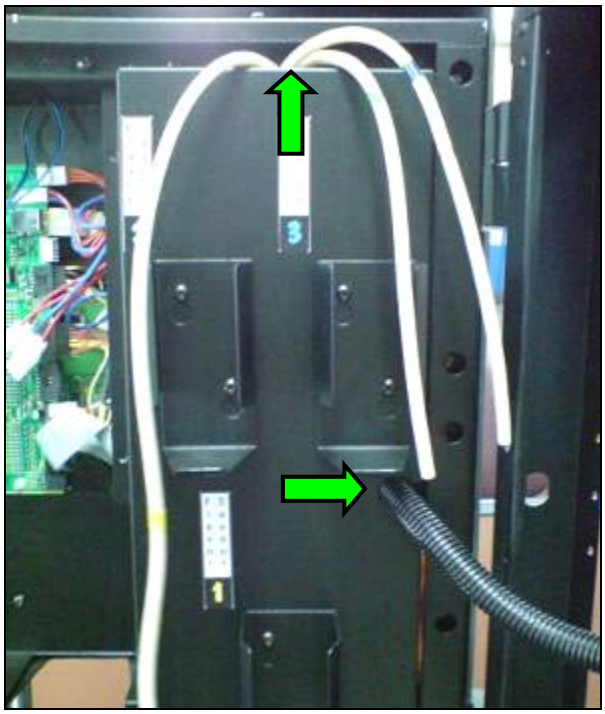
b. *Reconnect all of the wiring to their respective connectors on the expansion board. In most cases, the wiring can only fit onto one connector on the board, preventing connection errors.*



11. Reinstall the center flavor pump.
    a. *Align the keyhole slots on the pump support bracket with the two screws on the inside of the front door.*
    b. *Slide the pump over the screws and then slide it down before tightening the two screws to secure it to the door.*



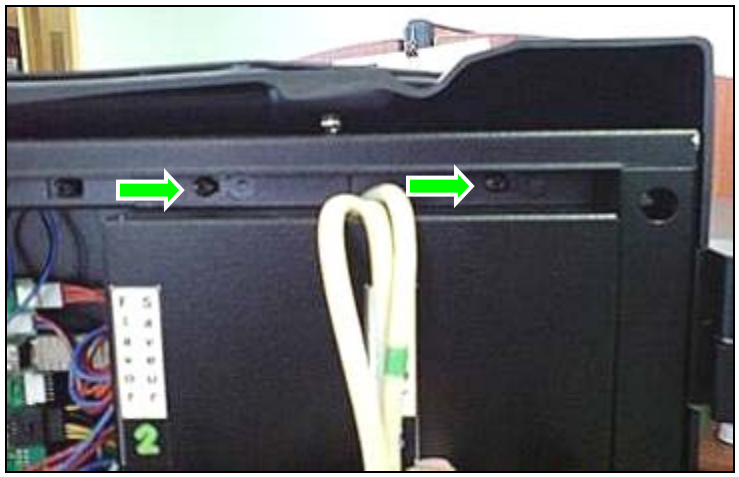
12. Reinstall the flavor pump cover.
    a. *Route the three outlet hoses **out** though the cutout on the top of the pump cover.*
    b. *Route the convoluted tubing containing the three inlet hoses **in** through the cutout on the right side of the pump cover.*

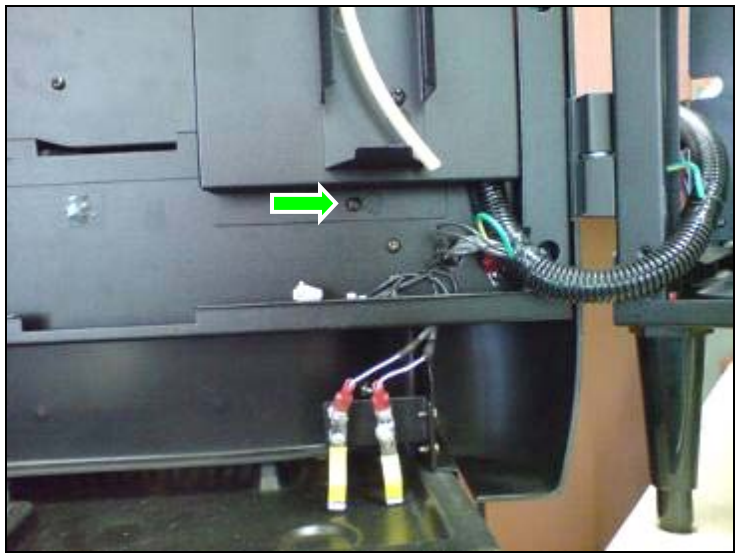


c. *Carefully align the pump cover's keyhole slots over its three mounting screws in the door (two at the top and one at the bottom).*

   i. **Make certain all of the wiring and the flavor tubing are inside the pump cover and are not getting pinched between the cover and the door.**

d. *Slide the pump cover slightly to the right and tighten the three screws to secure it in place.*





13. Reinstall the expansion board cover.

    a. *Insert the tow tabs on the left side of the board cover into the two vertical slots in the front door.*

    b. *Swing the right side of the expansion board cover closed.*

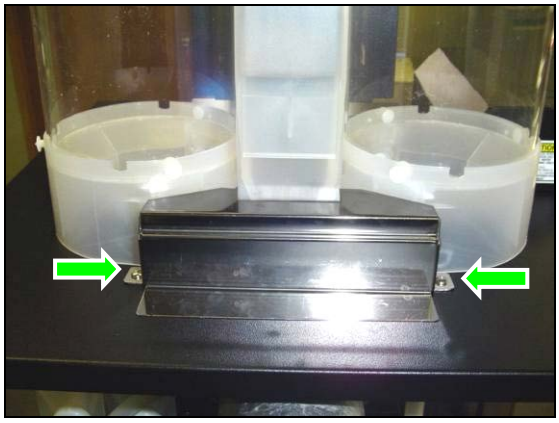
       i. **Make certain all of the wiring is inside the expansion board cover and are not getting pinched between the cover and the door.**

    c. *Secure it in place with two screws.*

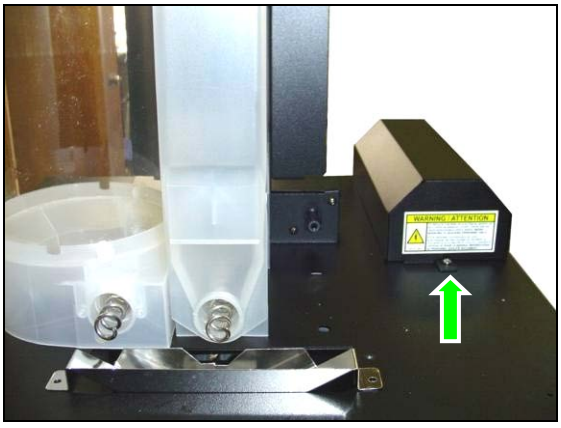
14. Reinstall the three flavor bottles onto their supports on the pump cover and insert the respective tubes into each bottle.

Replacing the Water Tank

1. Switch off the power to the machine and **drain the water tank**.
2. Remove the bean dispenser cover.
3. Remove the bean chute cover (two screws).

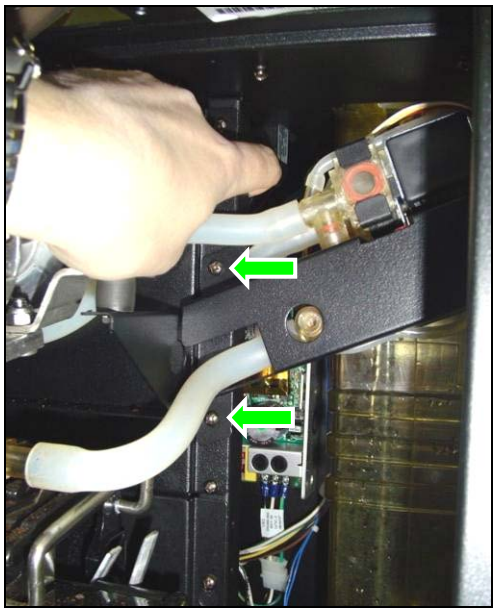


4. Remove the #3 coffee bean dispenser (right side).
5. Remove the screw securing the tank cover to the top of the machine and remove the tank cover.

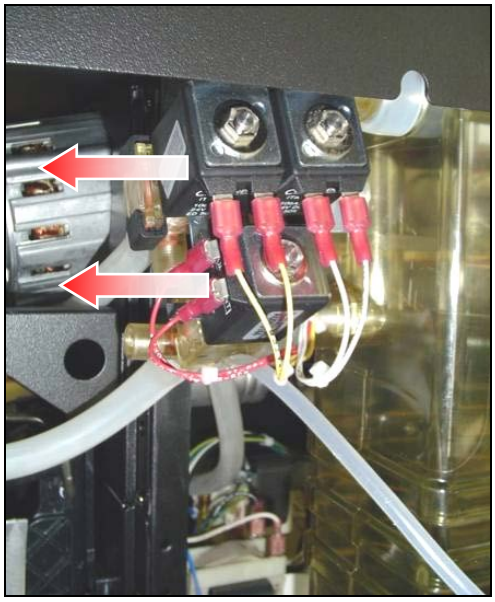


6. Remove the outlet valve cover (two screws).

7. Remove the outlet valve support plate (two screws).

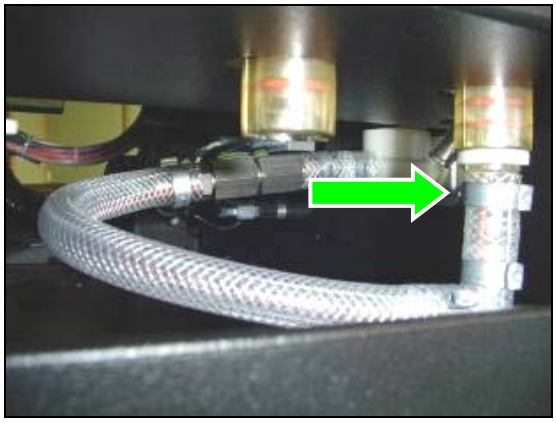


8. Remove the outlet valves.

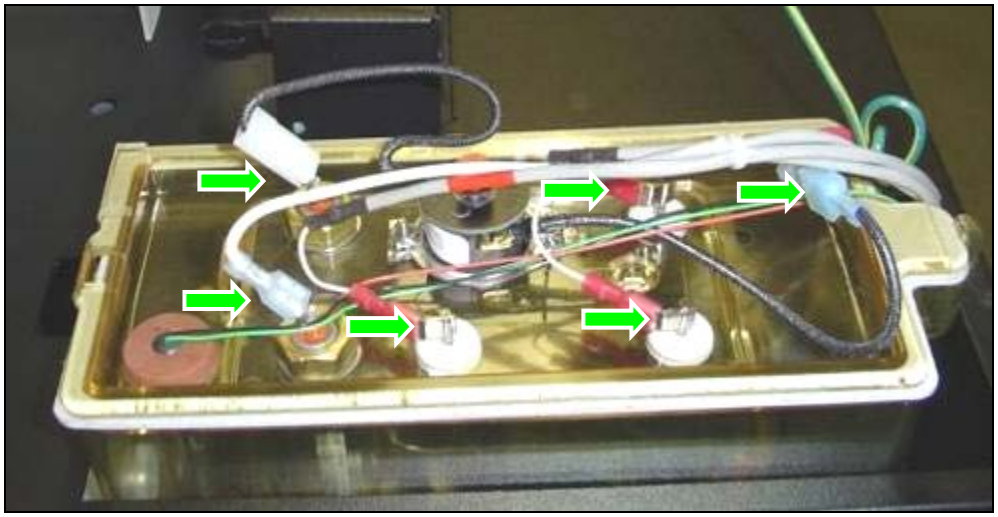


9. Remove the plastic clamp and disconnect the drain hose from the fitting at the bottom of the water tank.

10. Remove the Oetiker clamp and disconnect the inlet hose from the inlet fitting at the bottom of the water tank.



11. Disconnect the wiring from the components at the top of the water tank (on the tank lid).
    a. *Two heater element power wires.*
    b. *Thermal cut-off switch wire.*
    c. *Three level probe wires.*
    d. *Inline connector on the temperature probe.*

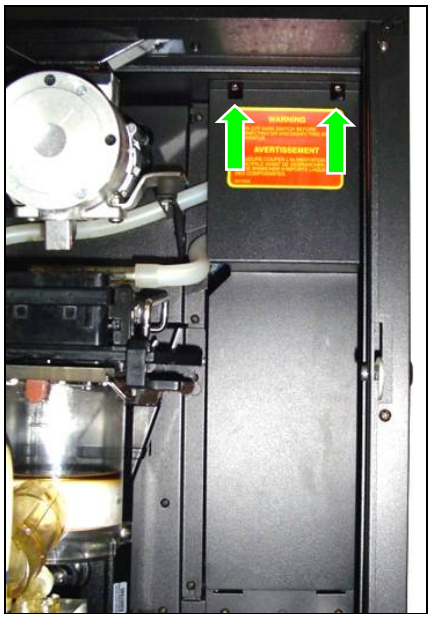


12. Lift the water tank up and out of the machine.

To re-install the hot water tank, follow these same instructions, but in the reverse order.

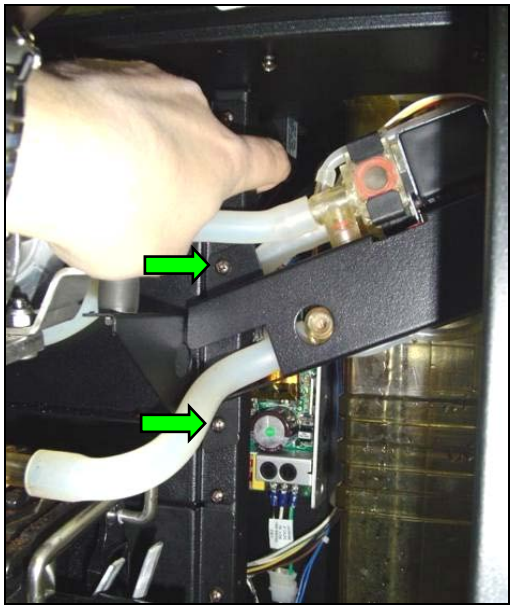
Replacing the Outlet Valves

1. **Switch the machine power off and unplug the service cord.**
2. **Drain the water tank.**
3. Remove the water tank valve cover.
    a) Loosen the two screws securing the top of the valve cover.
    b) Pull the top of the cover towards you and lift it to free it at the bottom. The coffee valve will now be accessible.

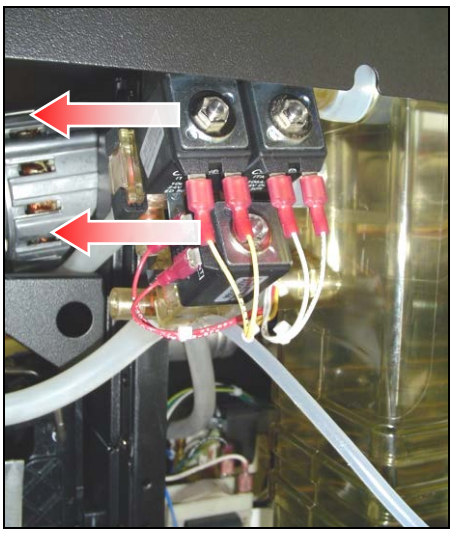


NOTE: The Eccellenza Café is equipped with a **single outlet valve** (for the coffee) and a **dual outlet valve manifold** (two stacked outlet valves in one assembly - one for the powder and one for hot water).

4. Remove the valve support by removing the two screws securing it to the machine.



5. Disconnect the wiring from the valve(s) to be replaced.
6. Pull the valve(s) from the silicone seal support in which it is mounted. **Use caution as there may still be a bit water remaining behind the valve when you remove it – this water may be extremely hot.**



OUTLET VALVE WIRING CONNECTIONS	
Coffee Valve	Red Wires
Powder Valve	White Wires
Hot Water Valve	Yellow Wires

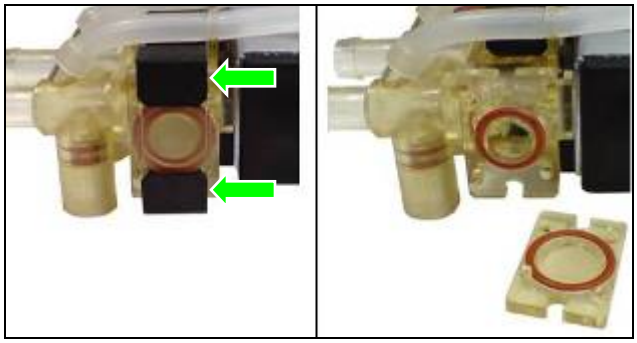
To re-install an outlet valve, follow these same instructions, but in the reverse order.

NOTE: If the coffee valve is replaced, it may be necessary to adjust the valve's flow rate by using the restrictor at the front of the valve. To decrease the flow, turn the restrictor clockwise. To increase the flow, turn it counter-clockwise.

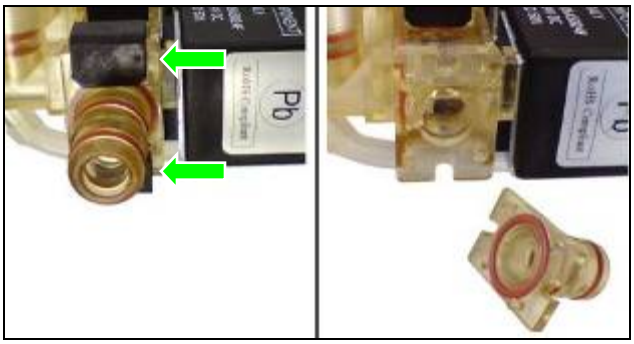
Disassembling the Dual Valve Manifold

1. Remove the two black clips (top and bottom center clips) securing the two valves together, and gently pull the two valves apart.

2. Remove the two clips securing the valve end cap to the valve body and gently remove the end cap. There are two o-rings located between the valve body and the end cap, and they must be replaced when re-assembling the valve.

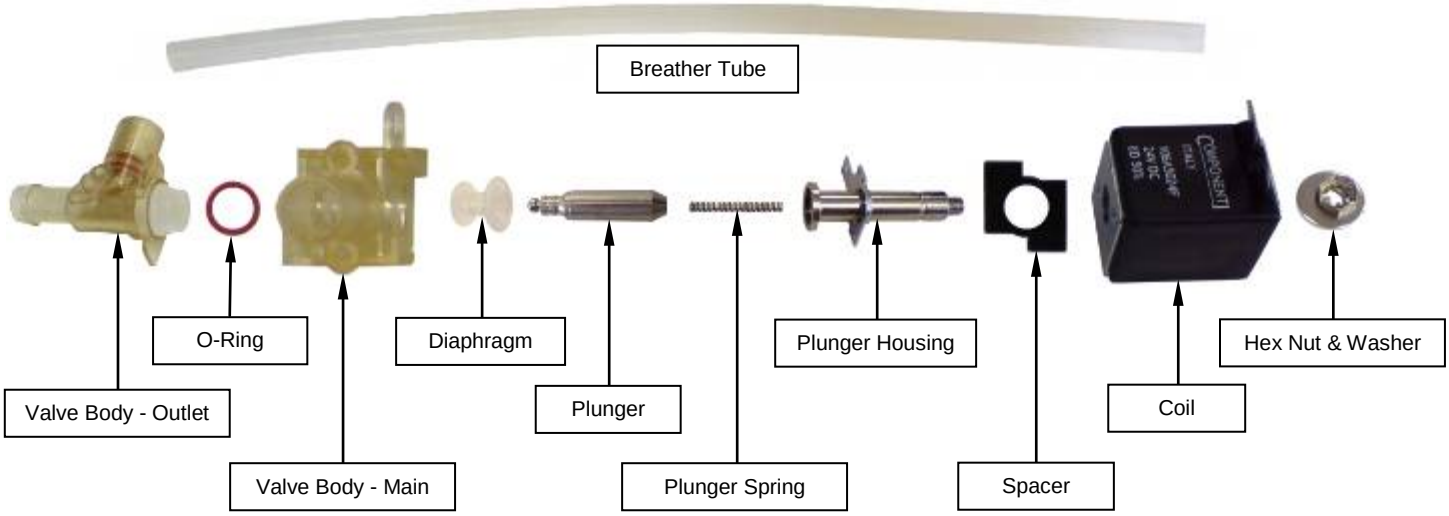


3. Remove the two clips securing the valve inlet to the valve body and gently remove the inlet. There is an o-ring located between the valve body and the inlet, and it must be replaced when re-assembling the valve.

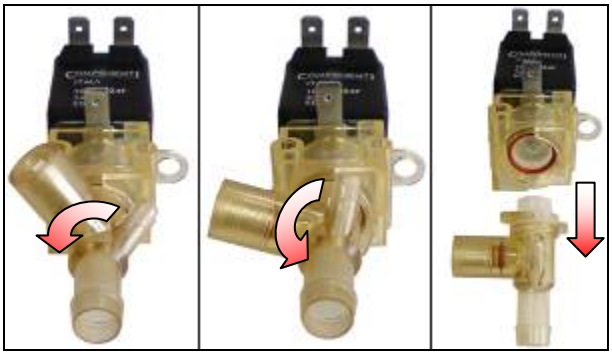


Disassembling an Outlet Valve

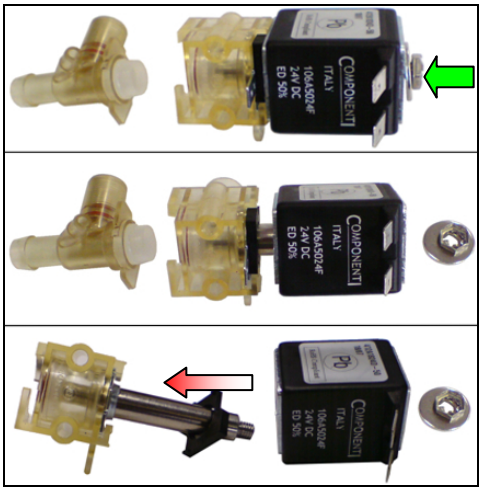
Overview of Outlet Valve Components



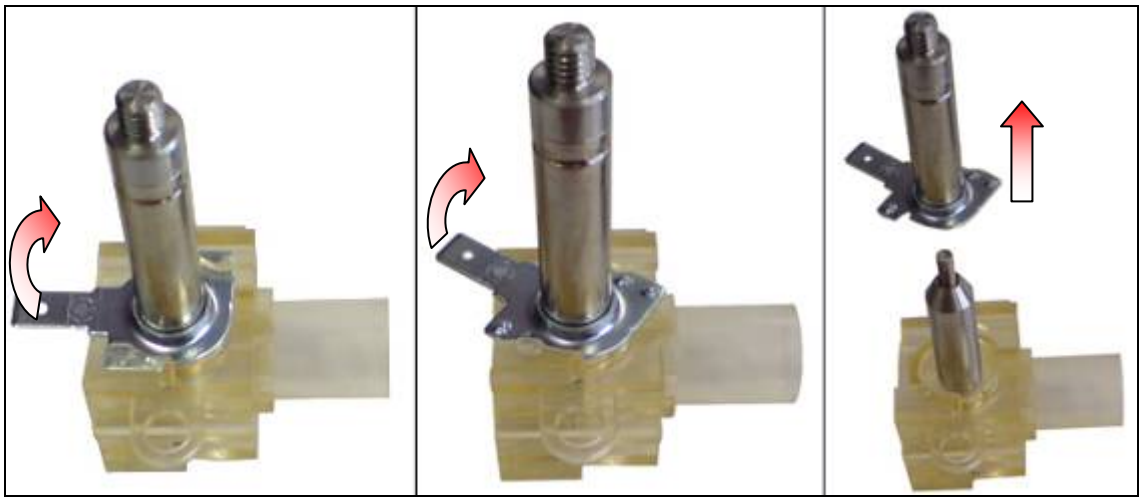
1. Remove the breather tube from the valve.
2. Rotate the outlet section of the valve body counterclockwise to release it from the main valve body, and pull the two sections apart. *Be careful not to lose the small orange o-ring located between the two valve body sections.*



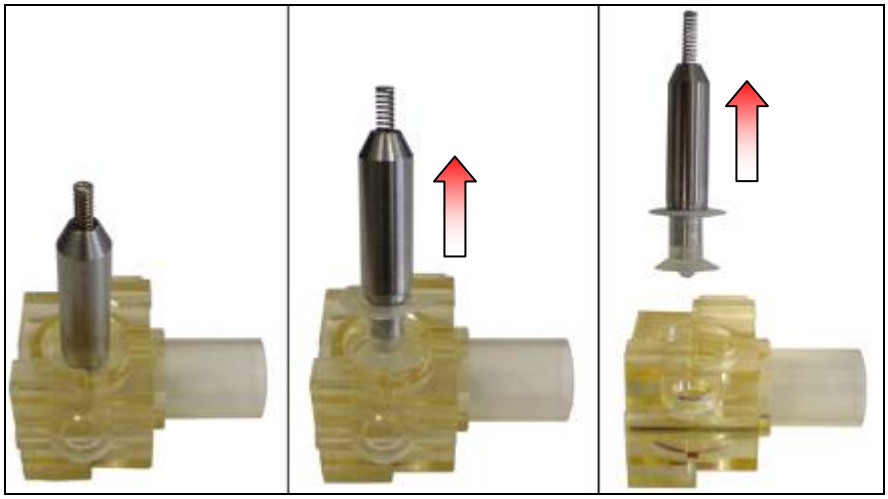
3. Remove the hex nut from the coil, and remove the coil from the main valve body. *Be careful not to lose the small black spacer located between the coil and main valve body.*



4. On the main valve body, twist the ground tab clockwise to free the plunger housing, and pull it away from the main valve body. This exposes the plunger and assembly. ***Be careful not to lose the small spring inserted into the end of the plunger.***



5. Pull the plunger assembly out of the main valve body. This exposes the diaphragm installed onto the tip of the plunger.

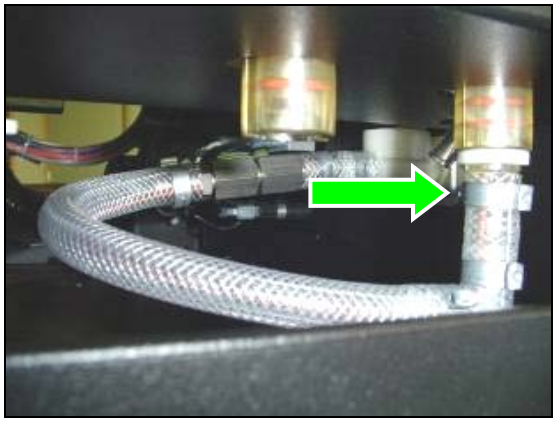


6. Remove the diaphragm by pulling it off of the tip of the plunger. The spring on the other end of the plunger can also be removed.

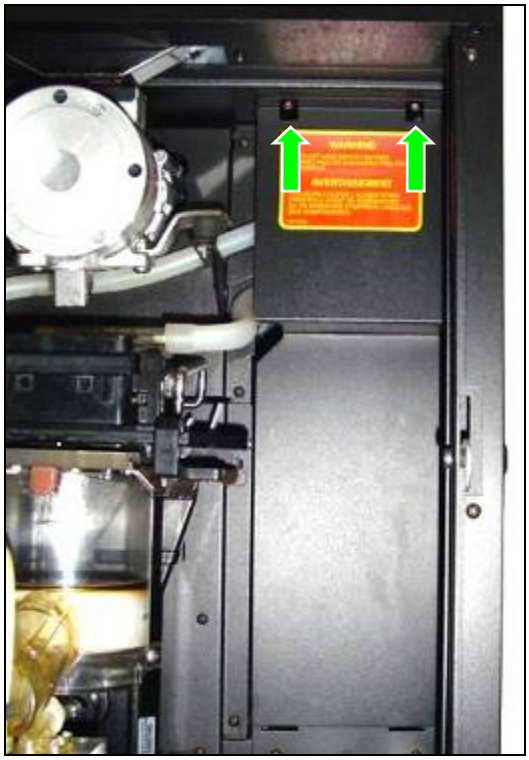
To re-assemble the outlet valve, follow these same instructions, but in the reverse order.

Replacing the Inlet Valve

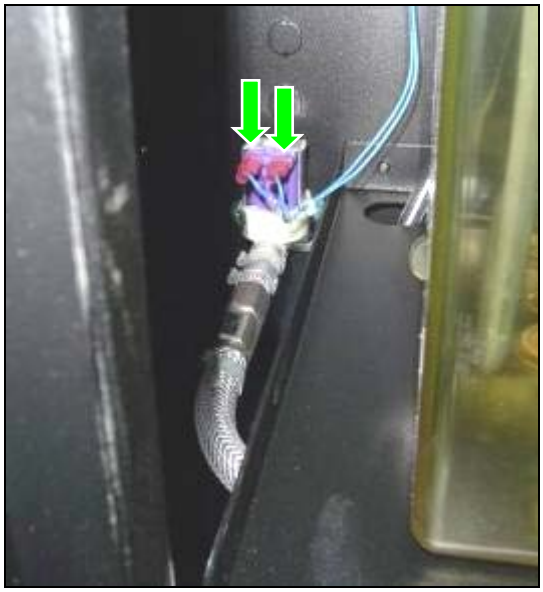
NOTE: The inlet valve consists of an assembly of hoses, fittings and a backflow prevention valve secured together by Oetiker (circle) clamps. To replace any component on this assembly, existing clamps will need to be removed and discarded. **New** clamps must be installed when re-assembling the inlet valve components.



1. **Switch the machine power off and unplug the service cord.**
2. **Disconnect the water supply and drain the water tank.**
3. Remove the water tank valve cover – this provides easier access to the valve.
    a) Loosen the two screws securing the top of the valve cover.
    b) Pull the top of the cover towards you and lift it to free it at the bottom.



4. Disconnect the two power wires from the inlet valve.



5. At the rear of the machine, remove the two screws securing the inlet valve to the rear wall of the machine.

6. Remove the Oetiker clamp securing the tubing assembly to the inlet valve. The valve can now be completely removed.
7. Secure the tubing assembly to the new inlet valve with a **new** Oetiker clamp.
8. Re-secure the inlet valve assembly to the rear of the machine with two screws.
9. Reconnect the power wires to the valve.
10. Re-install the water tank valve cover.
11. Re-connect the water supply to the inlet valve.
12. Switch the machine power on – the water tank will start filling.
13. Check for leaks.

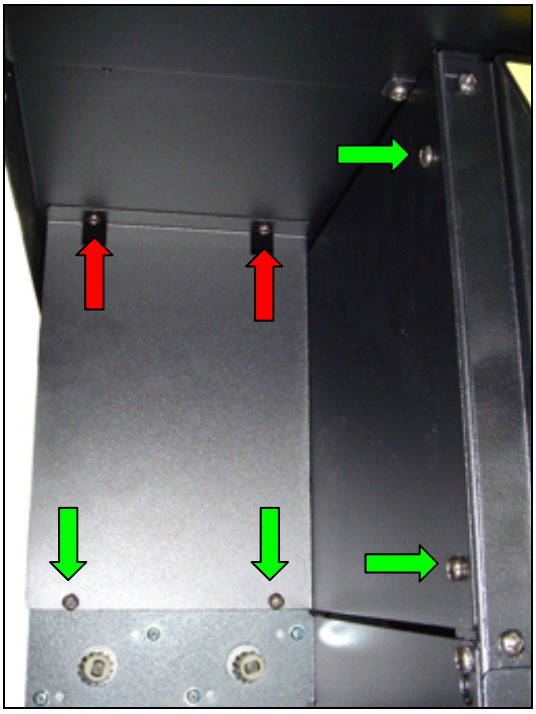
Replacing the Bean Grinder

CAUTION: ***The bean grinder may be hot if handled immediately after being used. If this is the case, switch the machine power OFF and keep the door open for several minutes to allow the grinder to cool.***

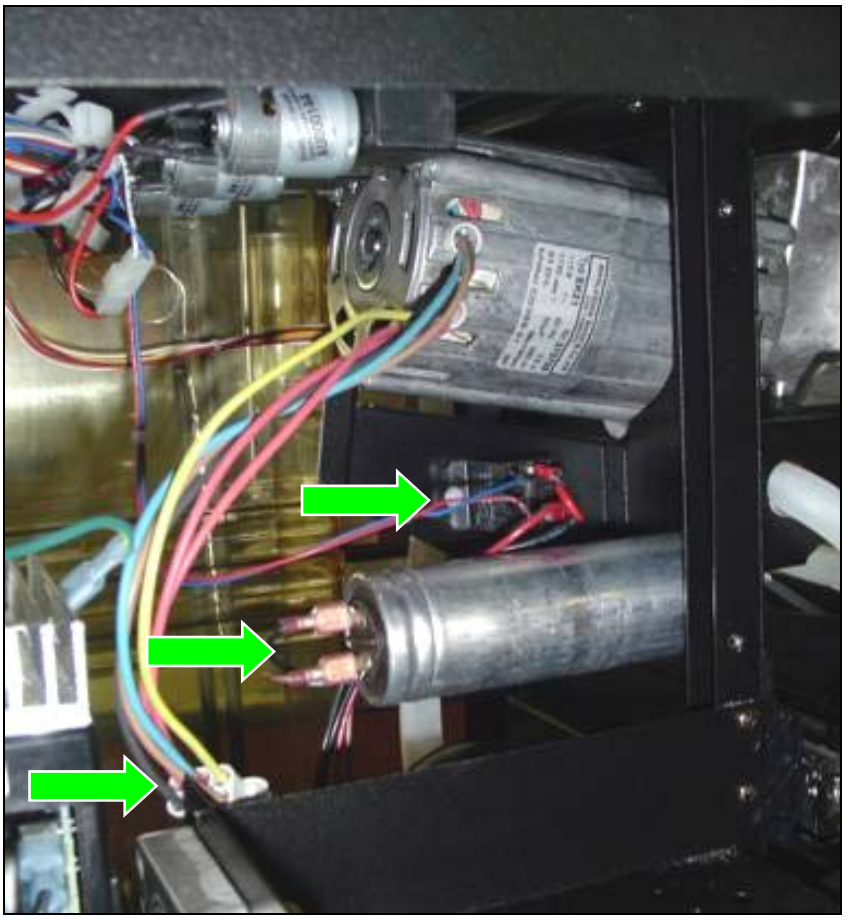
CAUTION: ***The bean grinder assembly is very heavy - use extra caution when removing or installing the grinder.***

CAUTION: ***Avoid touching the leads on the capacitor for the grinder as the capacitor may hold a small electrical charge for a few minutes after the grinder is used.***

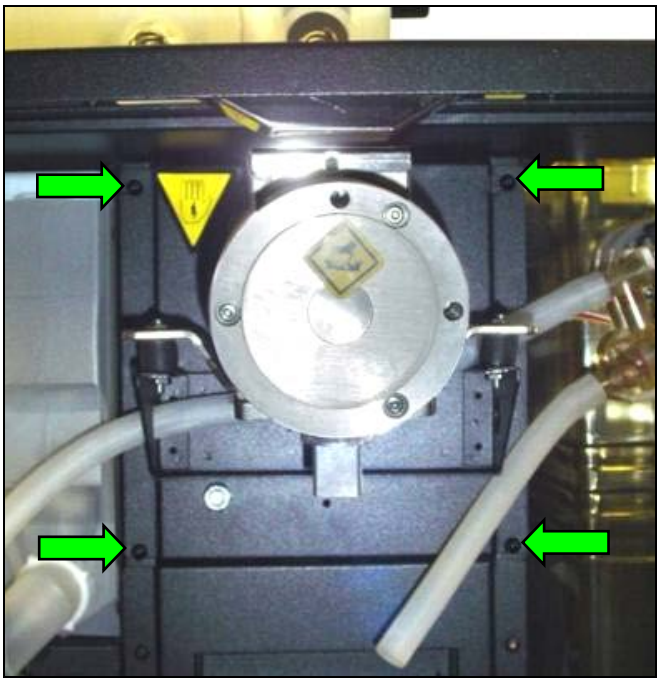
1. Switch the machine power off and unplug the service cord.
2. Remove the brewer assembly from the machine.
3. Disconnect the hot water hose from the door spout, and remove it from its routing underneath the front of the grinder.
4. Remove the top cover.
5. Remove the left side panel.
6. Remove the milk and chocolate powder dispensers.
7. Remove the wall behind the powder dispenser area.
    a. *Loosen the two upper screws.*
    b. *Remove the two lower screws and the two side screws.*



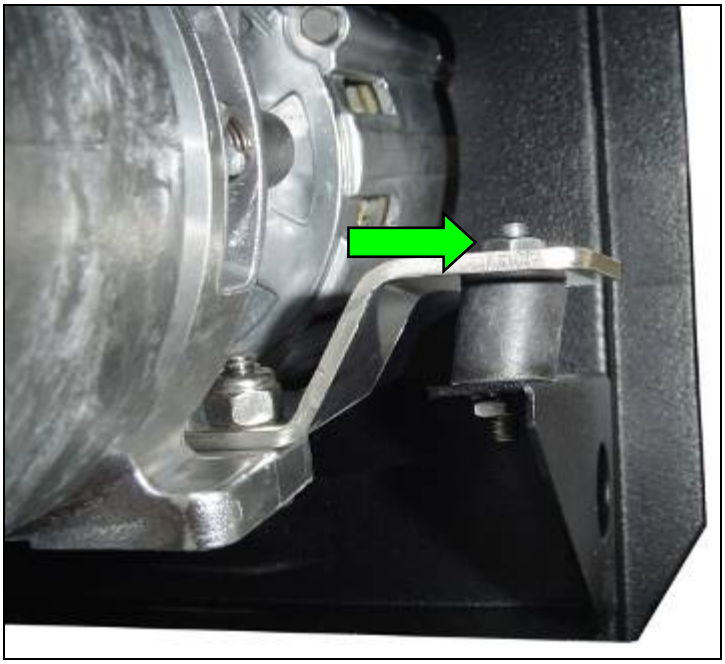
8. Disconnect the wiring from the capacitor and the relay, and disconnect the inline connector to the grinder unit.



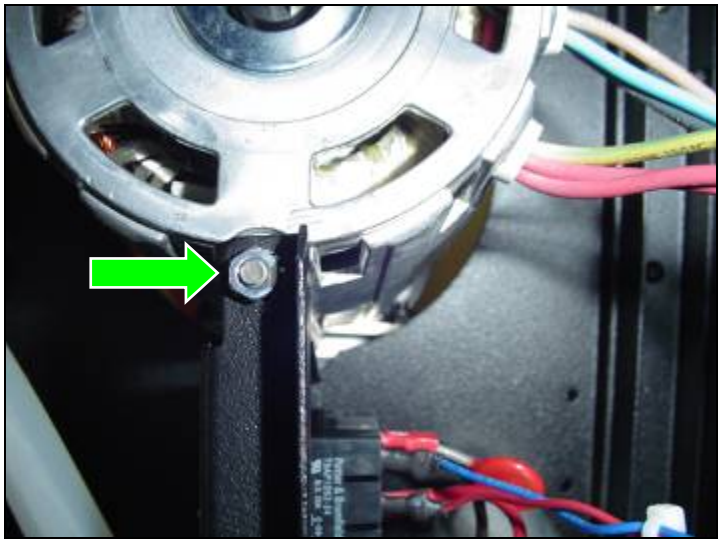
9. Remove the four screws securing the grinder support bracket. Firmly hold on to the grinder assembly while doing this as it is very heavy and may fall if it's not properly secured.



10. Carefully pull the grinder assembly out towards you.
11. Remove the grinder assembly and place it on a counter or work bench.
12. Remove the large hex nut from the top of both of the front grinder supports (one support on each side).

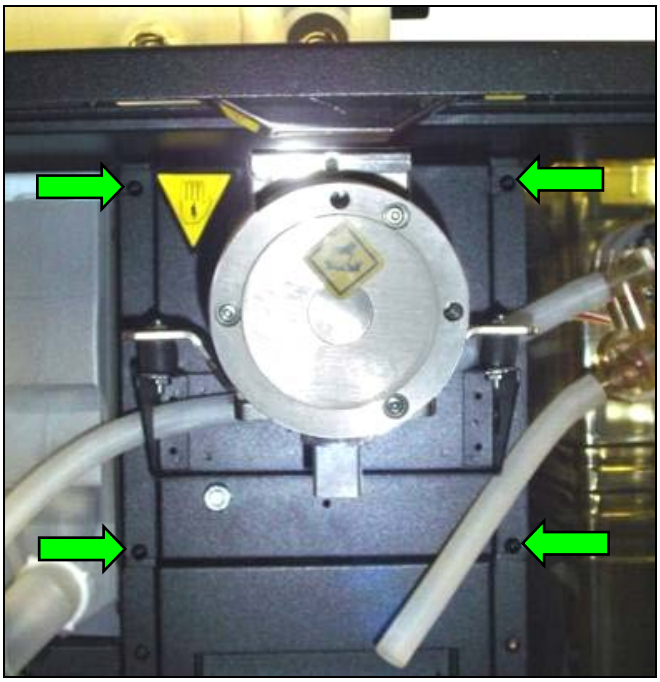


13. Remove the large hex nut from the rear grinder support.



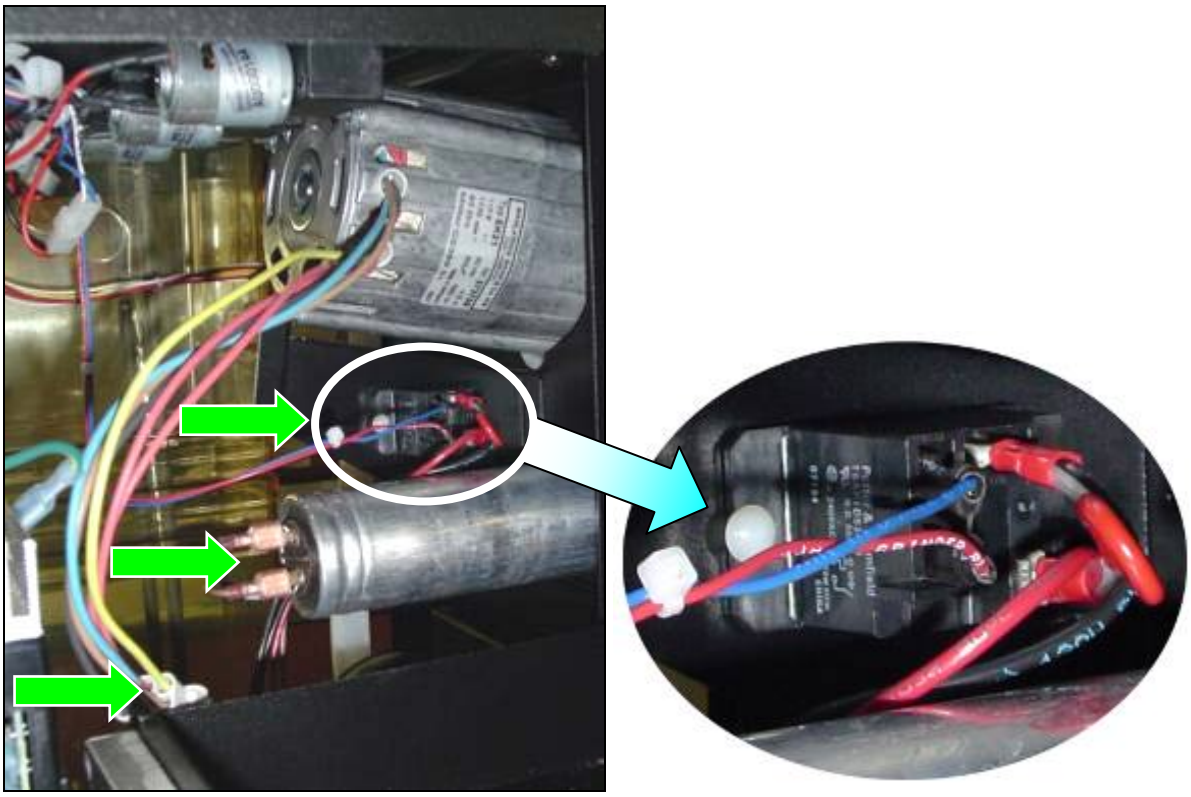
14. Remove the old grinder from the grinder bracket, and install the new one.
15. Install the large hex nuts on the top of both of the front grinder supports (one support on each side).
16. Install the large hex nut to onto the rear grinder support. The grinder is now secured to the grinder bracket.

17. Align the grinder assembly into position in the machine, and secure it in place with four screws.



18. Reconnect the wiring to the capacitor and the relay, and reconnect the inline connector to the grinder unit.

NOTE: The two capacitor wire connections are interchangeable, as are the two smaller relay wire connections and the two larger relay wire connections.



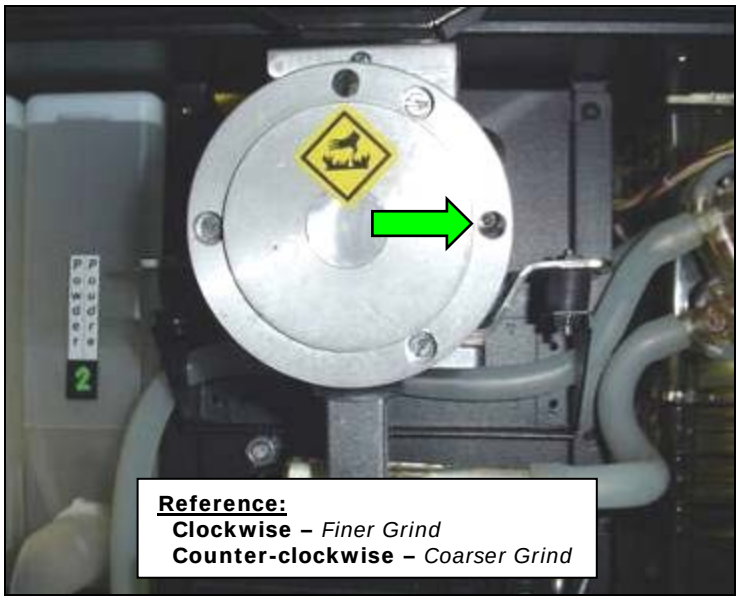
19. Re-install the powder wall and the powder dispensers.
20. Re-install the machine's left side panel and its top panel.
21. Re-install the brewer.
22. Re-route the hot water hose under the front of the grinder and to the door spout.
23. Reconnect the service cord to the wall outlet.
24. Switch the machine power on and test the equipment operation.

Adjusting the Bean Grinder

Under normal operation, the bean grinder rarely requires adjustment. Should you need to adjust the cutting blades, however, it can easily be done by using a flat head screwdriver or an Allen Key (depending on the model of bean grinder in your equipment).

To make the grind finer:

1. With an Allen key (or flat screwdriver), push and only slightly turn the adjustment screw clockwise (1/10th of a turn).

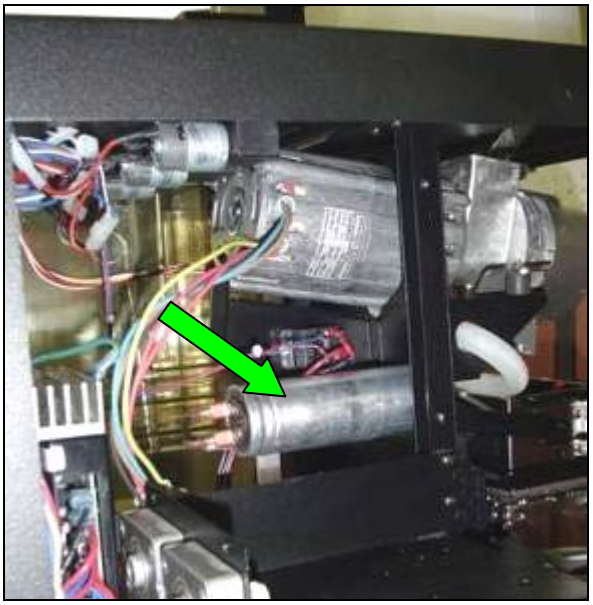


2. Release the pressure on the adjustment screw (stop pushing the Allen key or screwdriver).
3. **Without pushing**, gently turn the Allen key or screwdriver clockwise (to tighten) until you feel the adjustment screw click and lock (approximately 1/5th of a turn).
4. No more adjustments are required at this point. If the adjustment screw is tightened further, the coffee will be ground too fine causing problems with the brewing cycle and the beverage specifications.

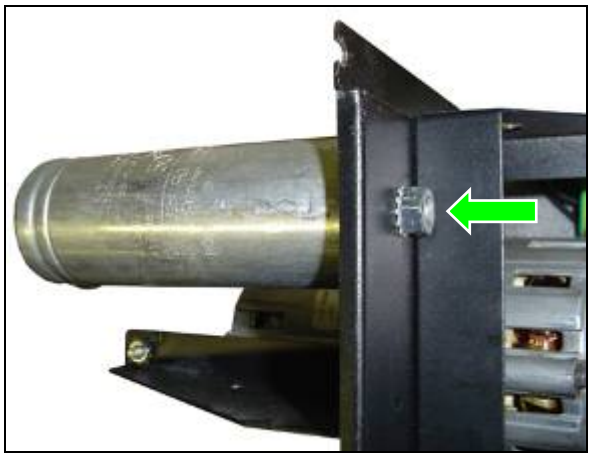
To make the grind coarser, follow the same procedure, however, the adjustment screw will need to be turned counter-clockwise instead of clockwise.

Replacing the Bean Grinder Capacitor

1. With the power to the machine switched off, remove the machine top cover and then the left side panel.
2. Remove the brewer assembly.
3. Remove the milk and hot chocolate powder dispensers.
4. Remove the powder area wall to gain access to the grinder capacitor.



5. Using a wrench or socket, remove the large hex nut securing the capacitor to the wall at the brewer area.

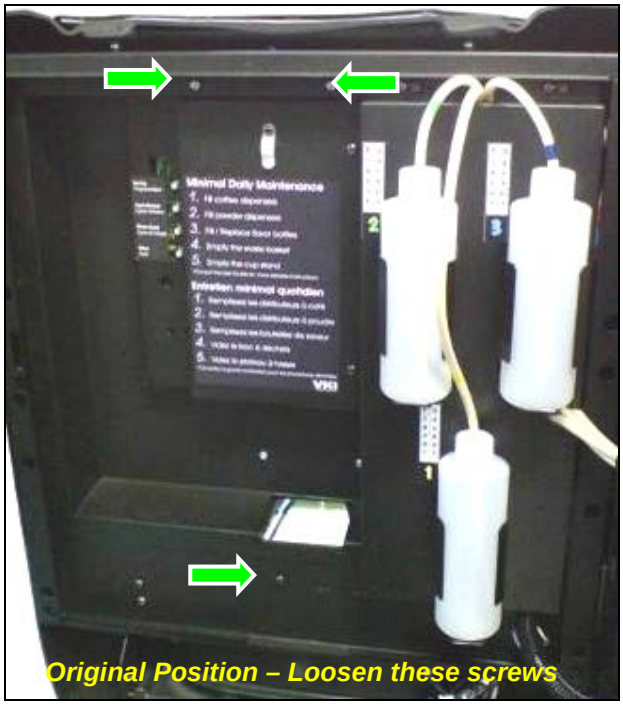


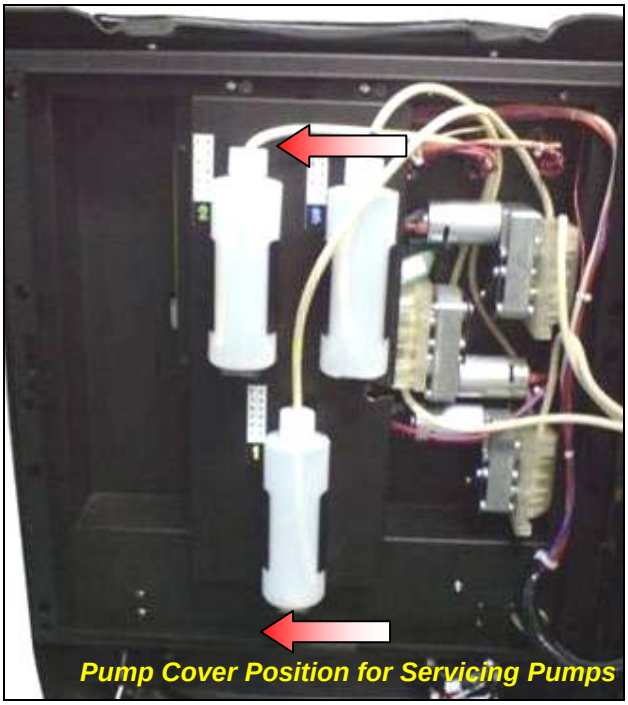
6. Remove the old capacitor and disconnect the two wires from it.
7. Connect the two wires to the new capacitor.
8. Install the capacitor onto the wall and secure it with the large hex nut.
9. Re-install the powder wall and the two powder dispensers.
10. Re-install the brewer.
11. Re-install the left side panel and the top cover.

Replacing a Flavor Pump

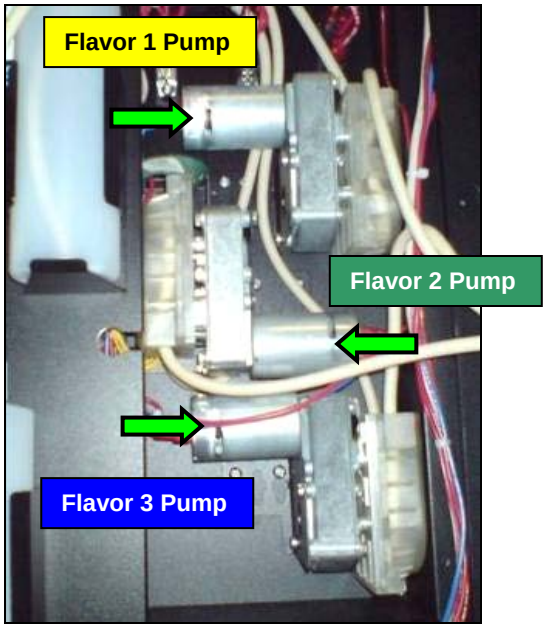
The following procedure guides you through the process of replacing a flavor pump.

1. Open the front door of the machine.
2. Remove the expansion board cover (*see page 44*).
3. Remove the flavor pump cover (*see page 45*).
4. Transfer the flavor pump cover onto the loosened screws at the left of its original position. This will keep the pump cover components intact and will expose the pumps for servicing.

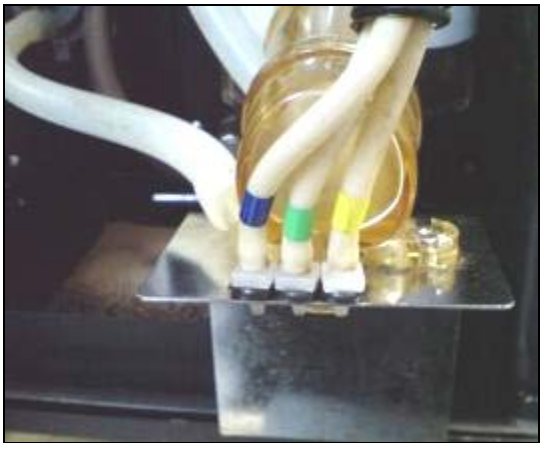




5. Disconnect the power wires from the pump that needs to be replaced. All three sets are identified below.

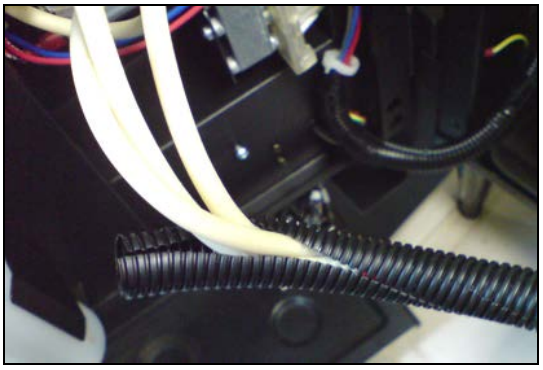


6. Remove the pump inlet tube from the flavoring bottle and disconnect the pump outlet tube by pulling it off from its spout on the spout support plate.

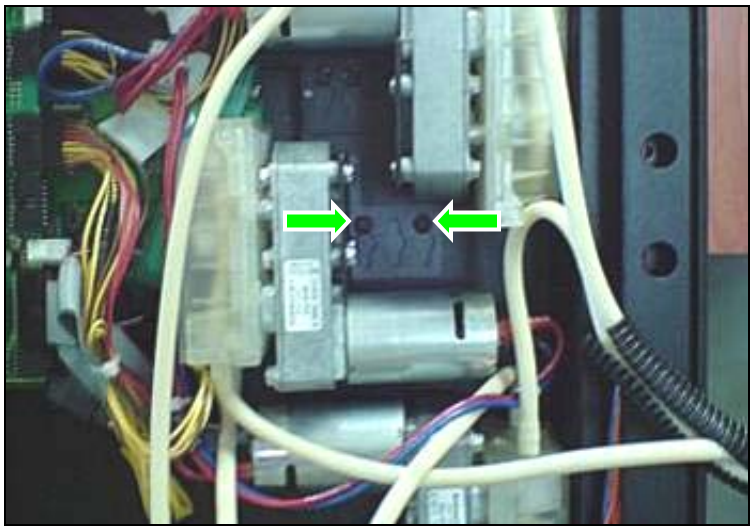


NOTE: When removing the flavoring tubes, have a paper towel ready as flavoring will drip out of the ends of the tubing. It is possible that the flavoring can stain clothing or other surfaces on which it drips.

7. Remove the convoluted tubing installed around the flavoring tubes. It may be necessary to cut any tape or cable ties securing the three tubes together.



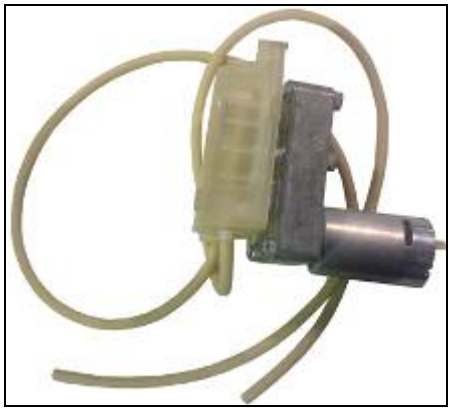
8. Remove the flavor pump (the flavor 2 pump is used as an example).
   a. *Loosen the two screws that secure the pump to the door.*

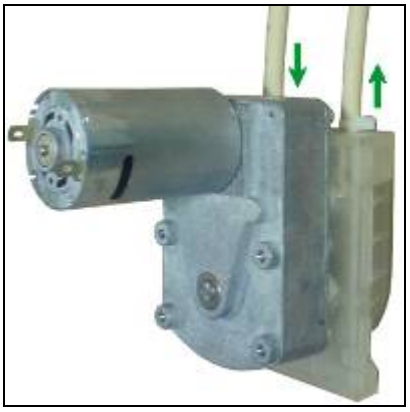


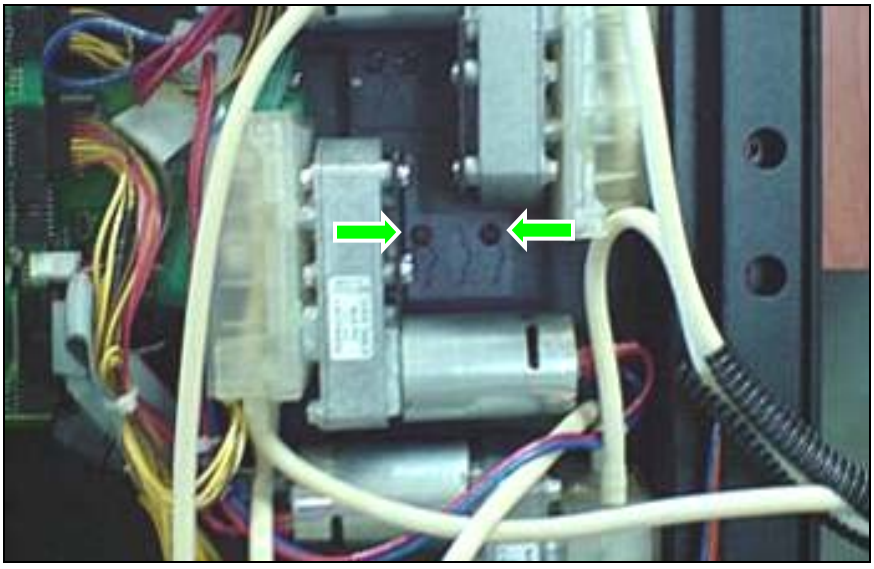
   b. *Lift the pump until it clears the two screws, and remove it.*

9. Install the new pump onto the two screws, making certain it is in the same direction as the pump that was removed.

Note that the replacement flavor pump comes pre-assembled with the tubing already installed; however, there is no colored tape on the tubing to help identify which flavor pump it is, so you may want to add colored tape. Also note the direction of flow of the pump, making certain not to reverse the two tubes during installation.

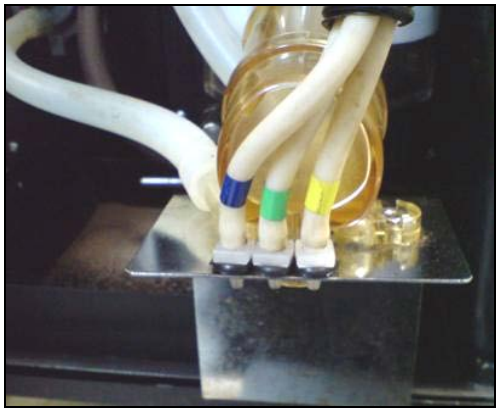




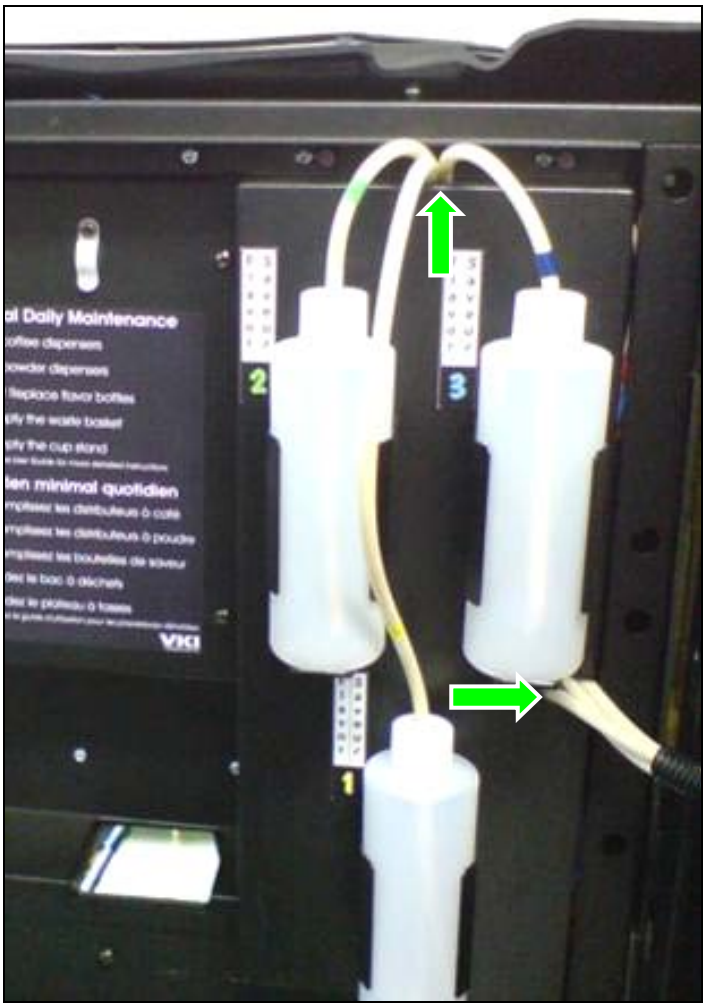


10. Insert the pump inlet tube into its respective flavor bottle.

11. Connect the pump outlet tube onto its spout on the spout support bracket.

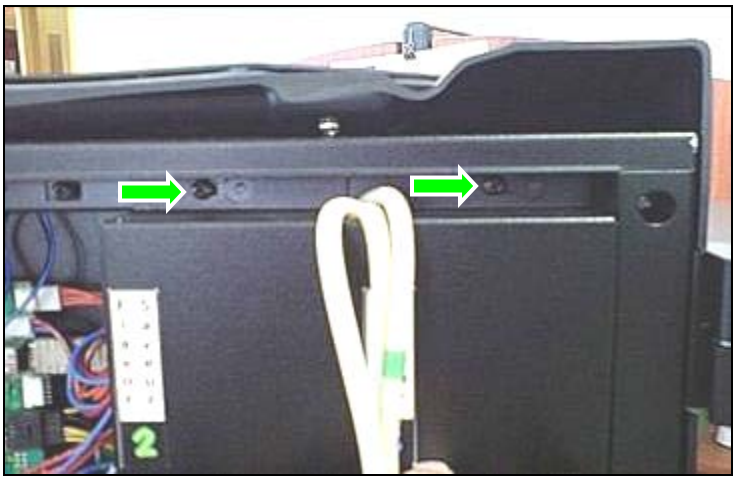


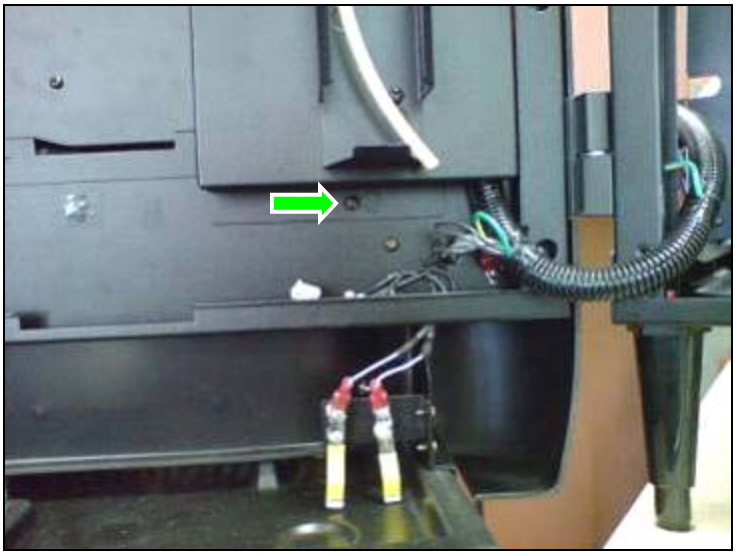
12. Use tape or wire ties to neatly bundle all three flavor tubes together. If using wire ties, do not over tighten as this may crush the tubes.
13. Cover the bundle flavor tubes with the convoluted tubing removed earlier.
14. Reinstall the flavor pump cover.
    a. *Remove the cover from the three screws on which it was placed for servicing the pumps in step #4.*
    b. *Route the three outlet hoses **out** though the cutout on the top of the pump cover.*
    c. *Route the convoluted tubing containing the three inlet hoses **in** through the cutout on the right side of the pump cover.*



    d. *Carefully align the pump cover's keyhole slots over its three mounting screws in the door (two at the top and one at the bottom).*
        i. **Make certain all of the wiring and the flavor tubing are inside the pump cover and are not getting pinched between the cover and the door.**

e. Slide the pump cover slightly to the right and tighten the three screws to secure it in place.





15. Reinstall the expansion board cover.

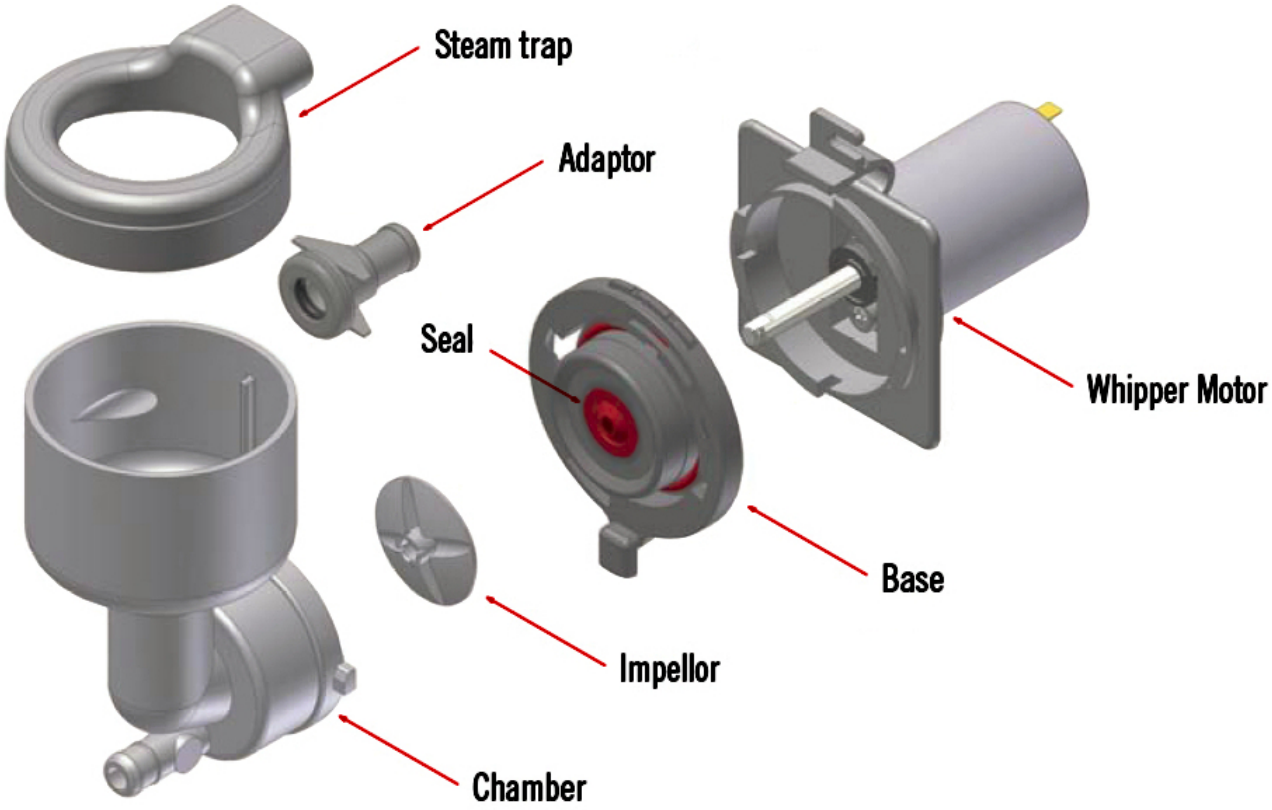
a. Insert the two tabs on the left side of the board cover into the two vertical slots in the front door.

b. Swing the right side of the expansion board cover closed.

i. Make certain all of the wiring is inside the expansion board cover and are not getting pinched between the cover and the door.

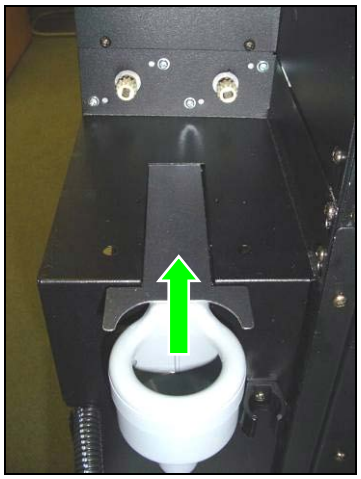
c. Secure it in place with two screws.

Replacing the Whipper Motor



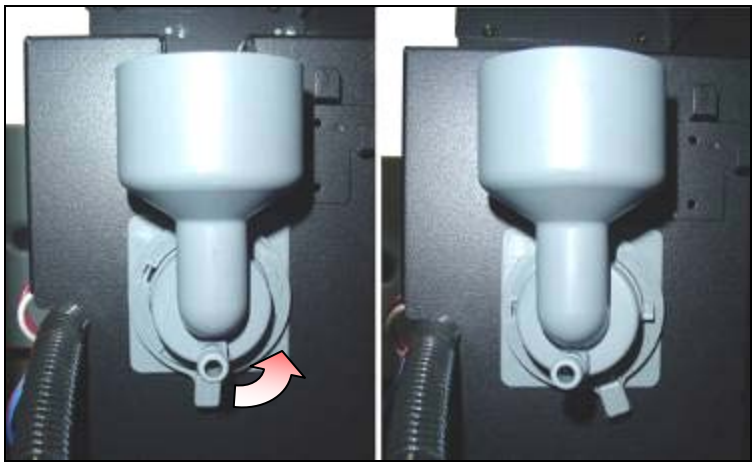
NOTE: Replace the impeller if it has been removed and re-installed multiple times as it may become loose on the whipper shaft and fall off during operation.

1. With the power to the machine switched off, remove the machine's top cover and then the left side panel.
2. Remove both the milk and chocolate powder dispensers.
3. Remove the upper vacuum duct plate.

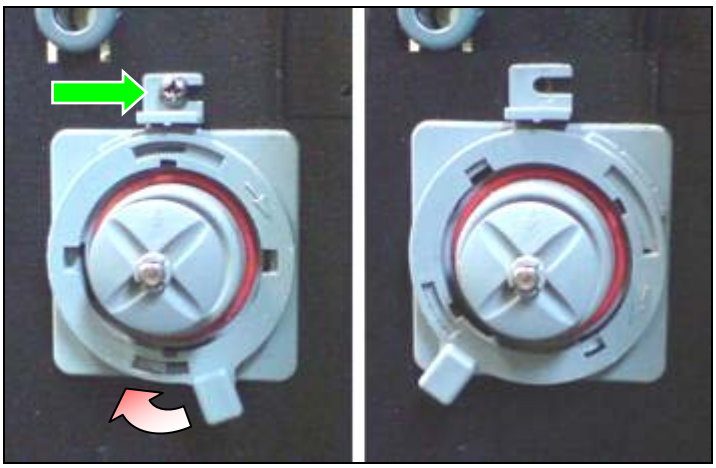


4. Remove the steam trap (vacuum cap) from the whipper chamber, and disconnect the outlet hose.

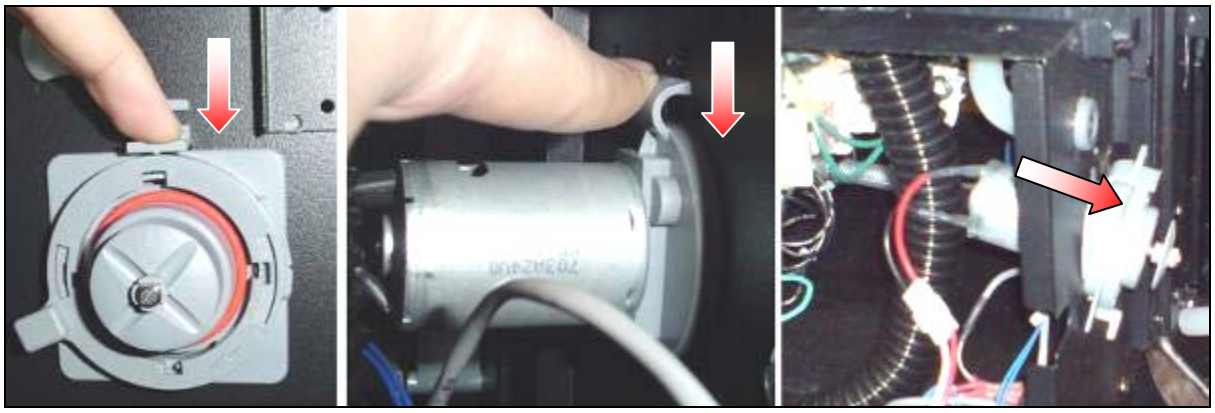
5. Turn the small handle on the locking ring (on the whipper base) to the right until it stops. This unlocks the whipper chamber from the whipper base, allowing it to be pulled off.



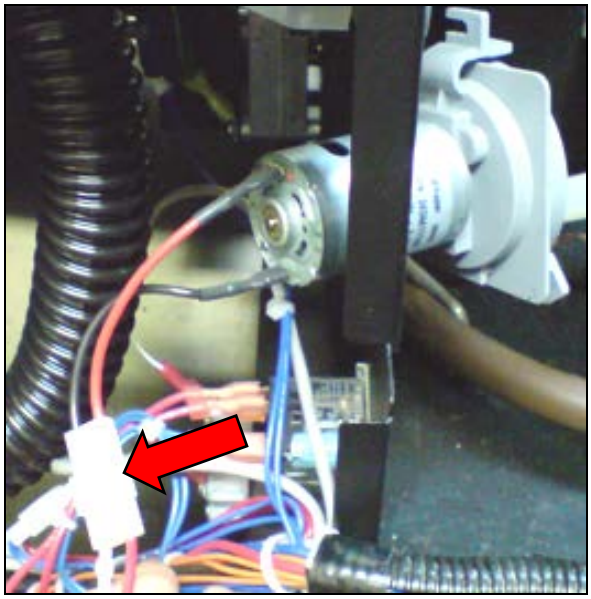
6. Remove the screw securing the top of the whipper base to the machine wall, and turn the handle on the locking ring to the left until it stops.



7. While pressing down on the locking clip at the front of the base, press down on the clip at the rear of the base, and push it out through the front of the wall.

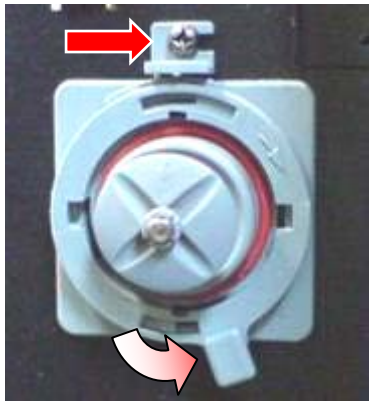


8. Disconnect the inline wiring connector that supplies power to the whipper motor.



9. Remove the base, gasket and impeller from the old motor and transfer it to the new motor.
10. Install the new motor into the cutout in the machine wall. Install the bottom of the assembly first, and then push the top of the assembly into the cutout until the plastic clip locks it in place.

11. Connect the inline wiring connector that supplies power to the whipper motor.
12. Turn the handle on the locking ring completely to the right and secure the base to the wall with a screw.



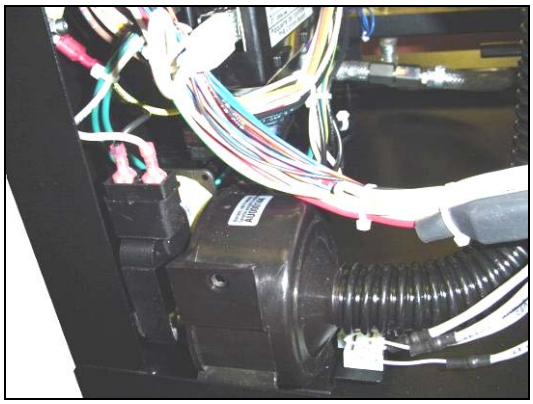
13. Insert the whipper chamber into the base (making sure to also insert the chamber's inlet into the adaptor), and turn the handle on the locking ring to the center position to secure the chamber.

14. Install the steam trap (vacuum cap) onto the whipper chamber.
15. Re-connect the whipper outlet hose.
16. Re-install the upper vacuum duct plate.
17. Re-install both the milk and chocolate powder dispensers.
18. Re-install the machine left side panel.
19. Perform a "**Powder Rinse Cycle**" to flush any powder that may have fallen into the whipper chamber.

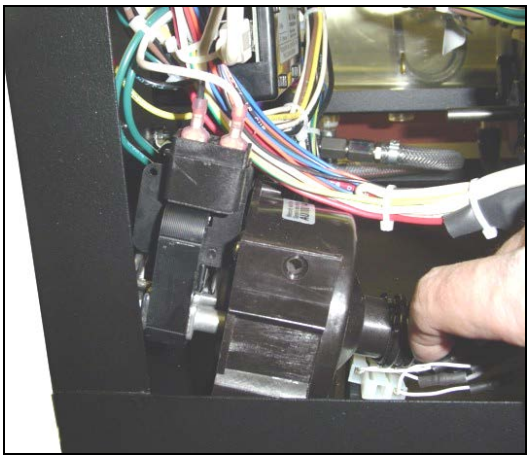
Replacing the Whipper Vacuum Fan

1. With the power to the machine switched off, remove the machine's top cover and then the left side panel.
2. Remove the screw that secures the fan to the rear of the machine. It is located at the back (outside) of the machine.

3. Disconnect the wiring to the fan, and remove the vacuum tube connected to the front of the fan.



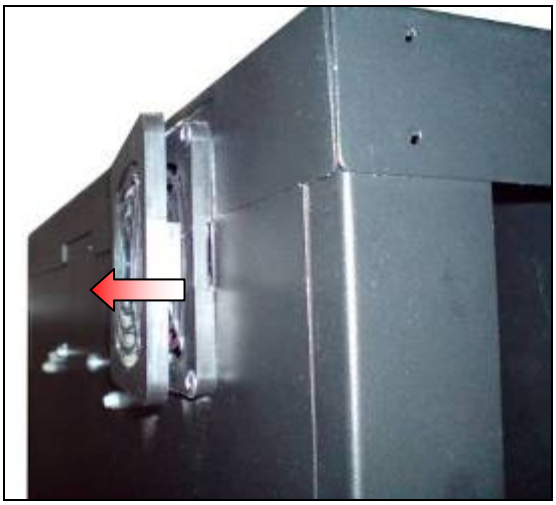
4. Tilt the top of the fan slightly and remove it.



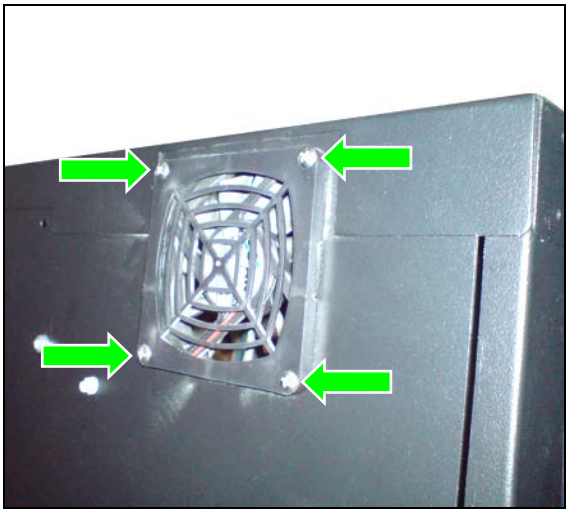
5. To install the replacement fan, follow these same instructions, but in the reverse order.

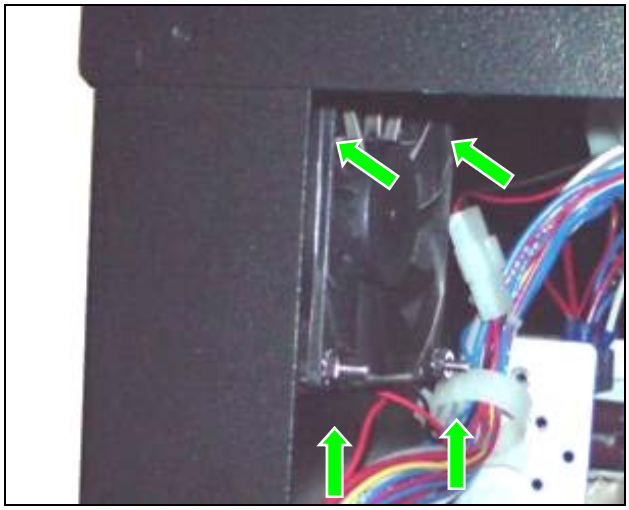
Replacing the Exhaust Fan

1. With the power to the machine switched off, remove the machine's top cover and then the left side panel.
2. At the rear of the machine, remove the fan cover (and screen) from the exhaust fan. The cover is clipped onto the outside of the exhaust fan and can be easily pried off by hand. If it cannot be removed by hand, a flat head screwdriver can be used to gently pry it off.

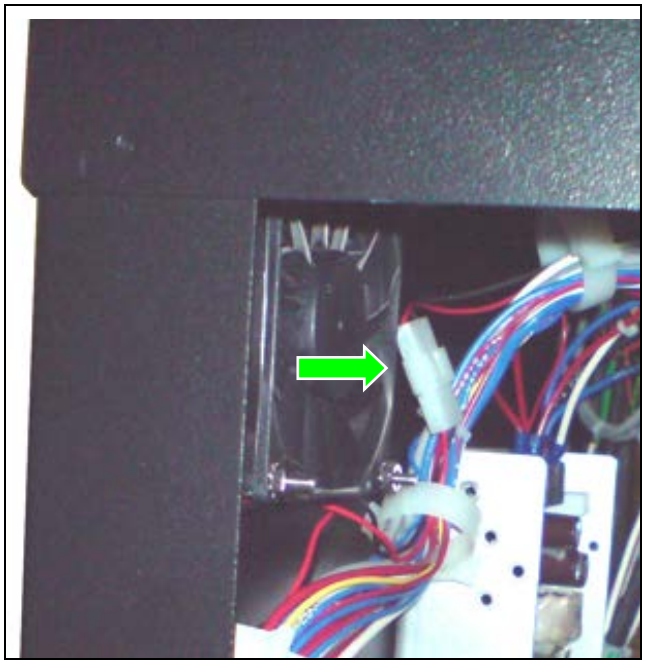


3. The fan is secured to the rear wall of the machine with four screws and hex nuts. Remove the four screws using a screwdriver while holding their respective hex nuts with a nut driver or small wrench. Be careful not to lose the lock washers for each hex nut.





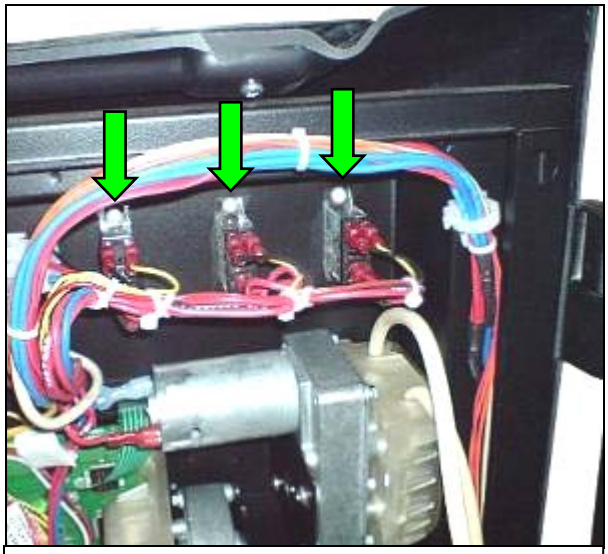
4. Disconnect the inline connector in the wiring to the fan.



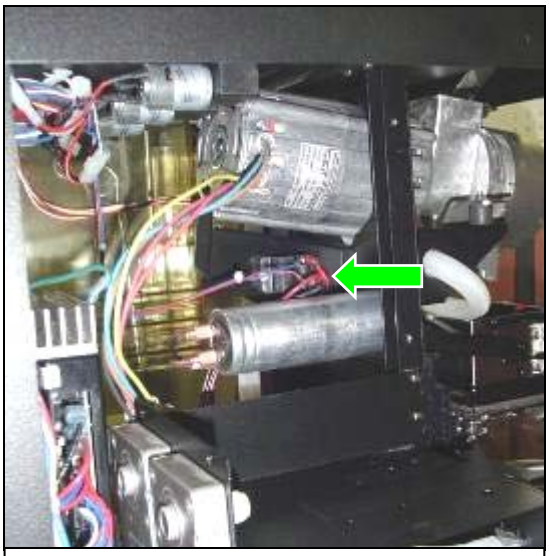
5. Connect the inline connector to the wiring of the new fan.
6. Secure the fan to the rear wall of the machine using four screws and hex nuts. Make sure to install the lock washers between the hex nuts and the fan body.
7. Clean the fan cover screen, making sure to remove any lint or dust that has accumulated on it.
8. Re-install the fan cover onto the outside of the exhaust fan by pushing it onto the fan until it clips in place.
9. Power up the machine to make sure the exhaust fan is functioning properly.
10. Re-install the left panel onto the machine.

Replacing Relays

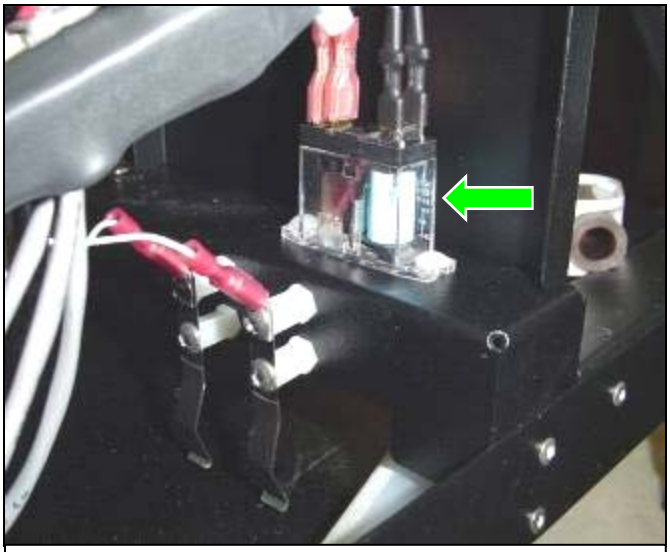
There are several power switching relays found throughout the Eccellenza Café. Should one of these relays ever need to be replaced, it can be removed by rocking the relay side-to-side until the plastic snaps are loosened. In some cases, a flat screwdriver may be required to then pry off the relay.



Flavor Pump Relays – *three relays located on the inside of the front door, directly above the flavor pumps.*



Grinder Relay – *located on the grinder support, between the grinder and the capacitor.*



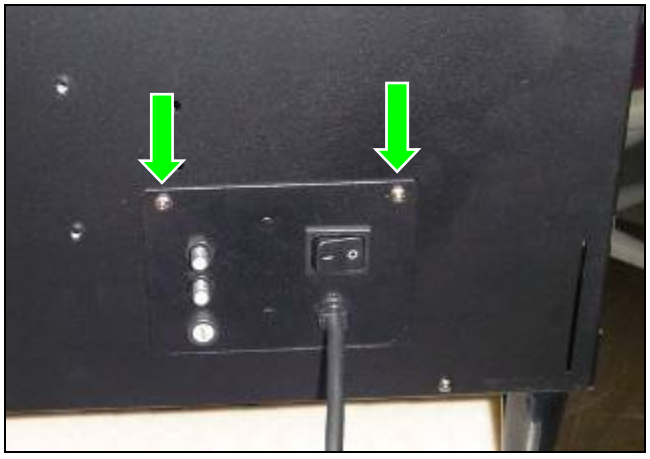
Whipper Motor Relay – *located behind the powder dispenser area, directly beneath the whipper motor and above the overflow sensors.*

Replacing Main Power Components

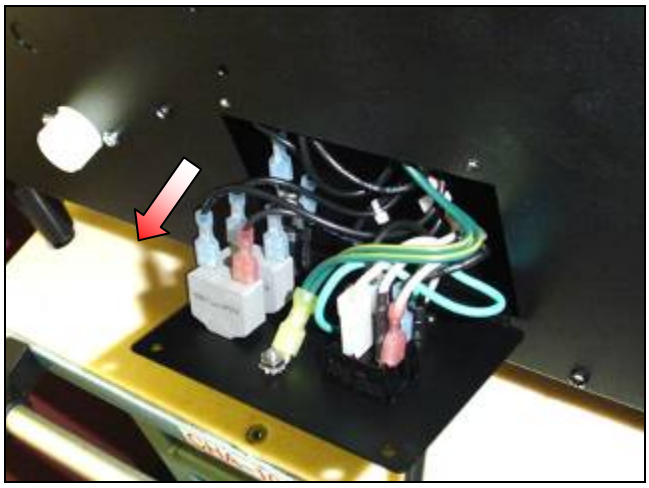
The service cord <u>must be disconnected from the wall outlet</u> when servicing these components. They remain live even when the main power is switched off at the rear of the machine.

The main power components are all secured to a plate at the rear of the machine. Removing this plate provides access to the two circuit breakers, the fuse holder, the main power switch and the main power plug for the service cord.

1. Switch the machine power off and **<u>disconnect the service cord</u>** from the wall outlet.
2. Remove the two screws securing the power component plate to the rear of the machine.



3. Tilt the top of the plate outward, and lift it to free the bottom of the plate.
4. Replace the faulty component *(see next page for detailed instructions on replacing each of these components).*



Circuit Breakers (5 Amp)

a. Disconnect the wiring from the circuit breaker.
b. Loosen the plastic hex nut that secures the breaker to the main power plate.
c. Remove the breaker and replace it with the new one.
d. Secure the breaker to the main power plate with the hex nut.
e. Connect the wiring to the new circuit breaker.

Fuse Holder (15 Amp)

a. Disconnect the wiring from the fuse holder.
b. Loosen the plastic hex nut that secures the fuse holder to the main power plate.
c. Remove the fuse holder and replace it with the new one.
d. Transfer the fuse and the cap from the old fuse holder onto the new one (if required).
e. Install the new fuse holder and secure it to the main power plate with the hex nut.
f. Connect the wiring to the new fuse holder.

Main Power Switch

a. Disconnect the wiring from the main power switch.
b. Compress the clips on each side of the switch, and push it through the main power plate.
c. Insert the new switch into the cutout on the main power plate, and snap it in place to secure it.
d. Connect the wiring to the new power switch.
    i. **Black wires** (hot) -> connect to tabs **#1** and **#1a** on the switch.
    ii. **White wire** (neutral) - *dual terminal* -> connects to tab **#2a** on the switch.
    iii. **White wire** (neutral) -> connects to tab **#2** on the switch

Service Cord Power Plug

a. Disconnect the service cord from the power plug on the main power plate.
b. Disconnect the wiring at the rear of the power plug.
c. Remove the two screws securing the plug to the main power plate and remove the plug.
d. Insert the new plug onto the plate and secure it in place with two screws.
e. Reconnect the wiring to the rear of the power plug.
    i. **Black wire** (hot) –> connects to the **left tab**.
    ii. **White wire** (neutral) -> connects to the **right tab**.
    iii. **Green/Yellow wire** (ground) -> connects to the **bottom tab**.

Installing the Coin Changer System

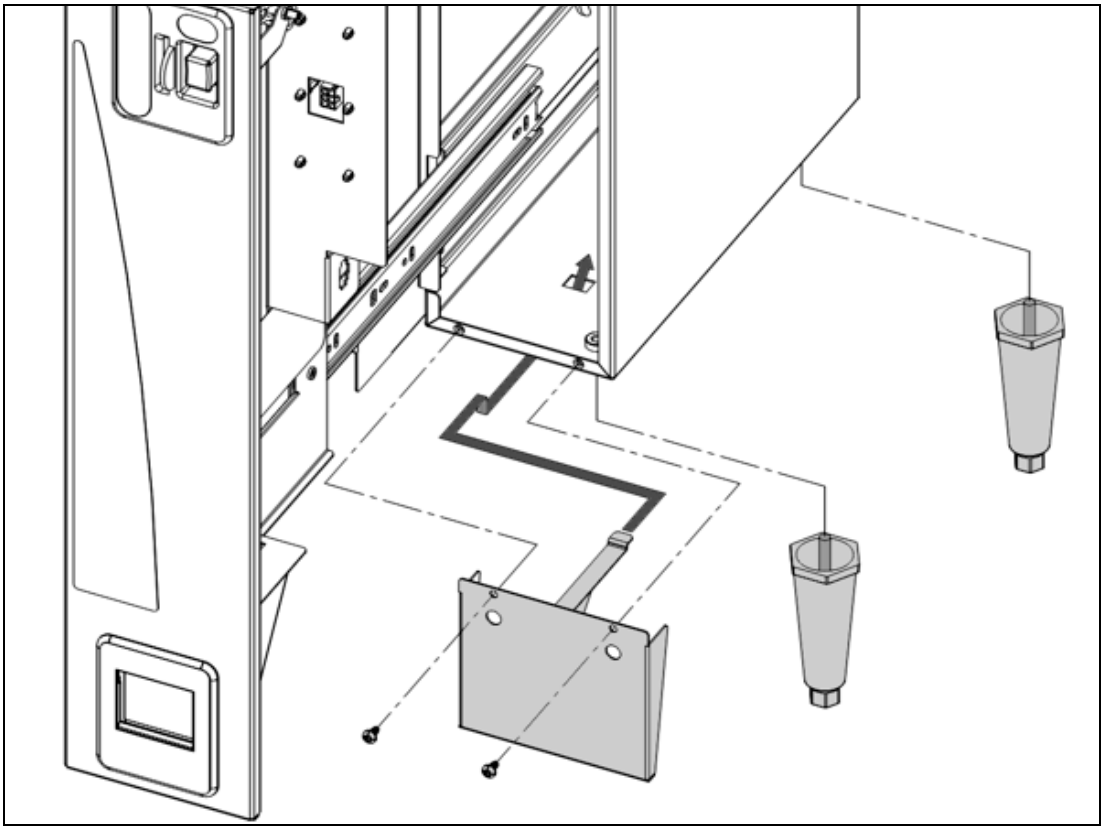
The Eccellenza Café uses the "**MDB–Level 3**" protocol to communicate with a compatible coin changer. VKI has thoroughly tested and validated the following coin changer units for proper operation with the Eccellenza Café (with firmware version 1.5.2 or higher):

Coinco® - Guardian 6000 Series, Quantum Pro, CoinPro3
MEI® - Cashflow 7000 Series
NRI® - Currenza C2
Conlux® - MCM5-1

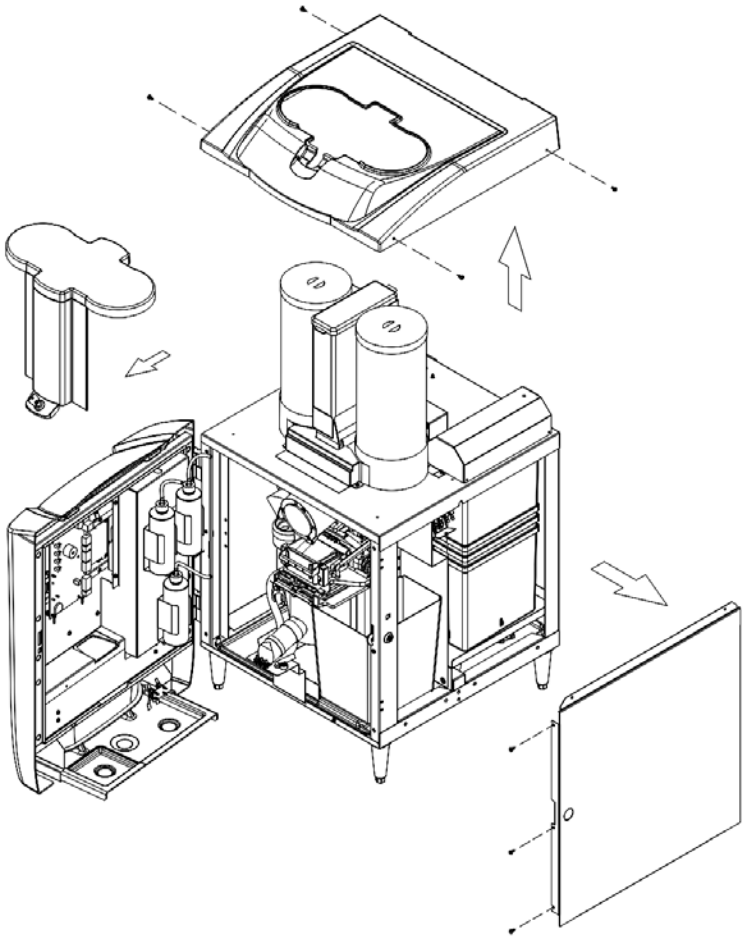
It is highly recommended that you acquire the **"Operation & Service"** manuals for each of these changers from their manufacturer. These sophisticated changers are highly customizable and may require direct configuration through their own respective software, which is totally independent of the Eccellenza Café software configuration.

Install the changer housing skirt and levelers

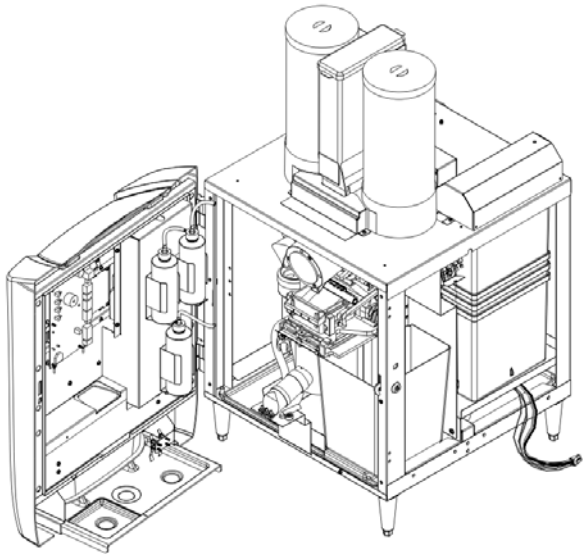
1. Remove the coin changer housing from its packaging.
2. Open the coin changer housing door and remove the housing's front skirt and two levelers, which are stored inside.
3. Install the two levelers onto the bottom of the housing.
4. Install the skirt onto the bottom front of the housing and secure it in place with the two screws provided.



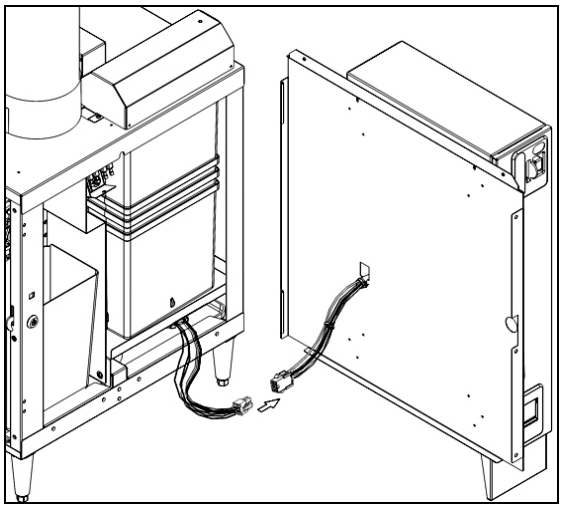
Install the changer housing

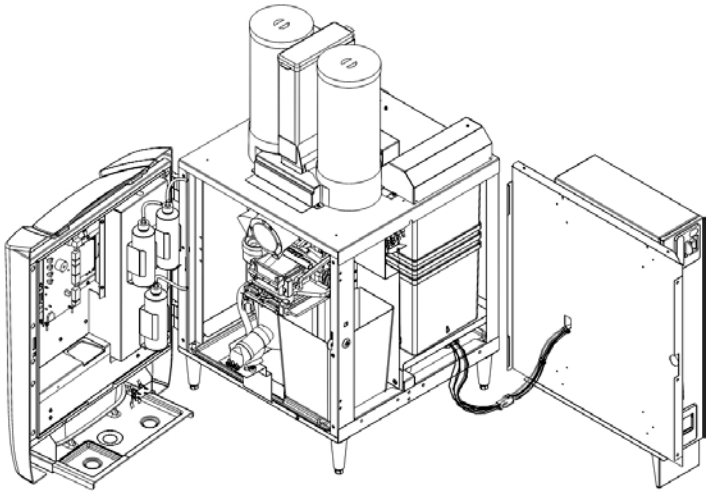


1. With the machine power switched off, unlock and remove the bean dispenser cover.
2. Remove the machine top cover.
3. Remove the side panel. The original right side panel is no longer required as the coin changer housing replaces it.
4. Locate the changer harness in the machine (stored underneath the hot water tank).

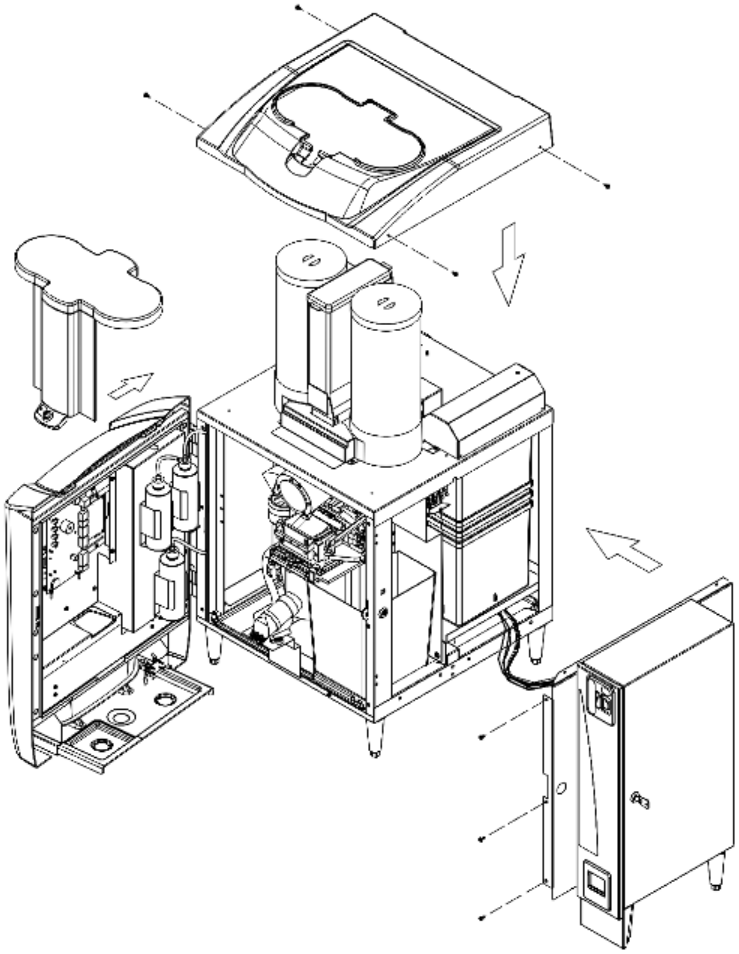


5. Connect the white connector at the end of the wiring harness to the connector on the harness coming from the coin changer housing.





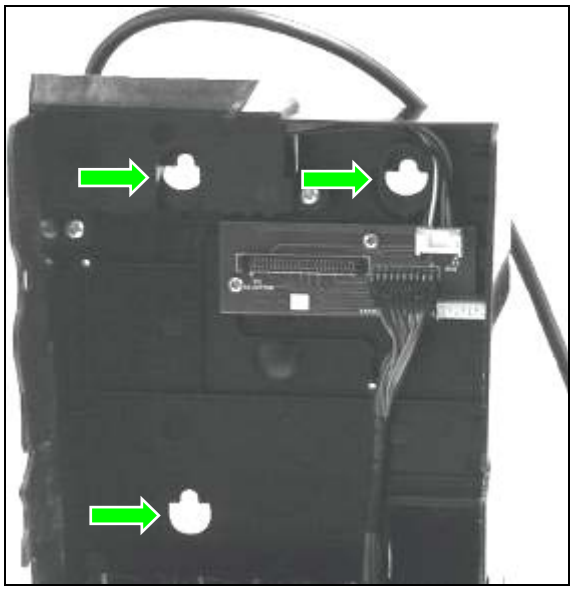
6. Re-install the right side panel (which is now the complete coin changer housing) and re-install the top cover.



Install the coin changer assembly

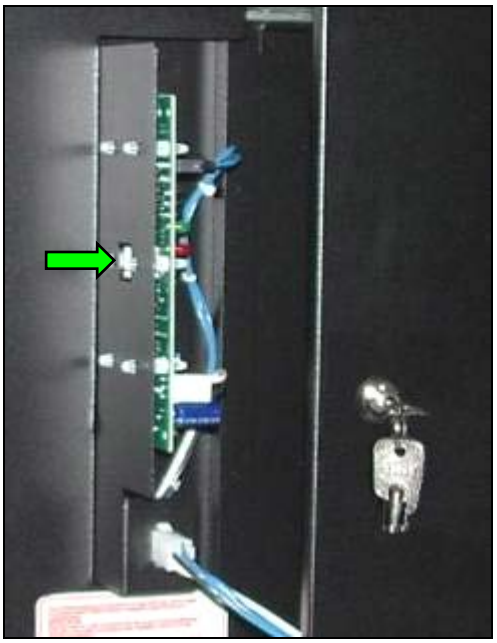
1. Unlock the coin changer housing and pull the door open.
2. Loosen the three mounting screws on the inner wall of the housing.

3. Slide the coin changer over the three screws (there are three keyhole slots at the rear of the changer) and push down on it, making sure all three screws are inserted into the slot.



4. Flip open the acceptor portion of the coin changer and tighten the three screws to secure the changer to the housing, and then close the acceptor portion.

5. Connect the coin changer wiring to the small board-mounted connector in the changer housing.



6. Close and lock the door of the coin changer housing.

NOTE: The coin changers used in the Eccellenza Café are available in several configurations and can be customized using the changer's own built-in software and hardware. Please consult the documentation provided by the manufacturers of these units.

Test the machine and the coin changer system

1. To switch the machine from free mode to coin mode, press the forth button down on the interior button panel of the machine (on the inside of the front door).

2. Insert several coins to test the coin changer system (insert more than the selling price of the beverage). The coins should be accepted and a credit will be displayed on the LCD screen.
3. Make a beverage selection and press the Start button to prepare the beverage. You should receive change if your credit exceeded the selling price of the beverage.
4. Insert a few more coins, only this time, press the coin reject button on the changer. The money inserted should now be returned to you in the coin return cup.

Installing the Bill Acceptor System

The Eccellenza Café uses the "**MDB–Level 3**" protocol to communicate with a compatible coin changer and bill acceptor. VKI has thoroughly tested and validated **ONLY** the following bill acceptors for proper operation with the Eccellenza Café:

Bill Acceptors

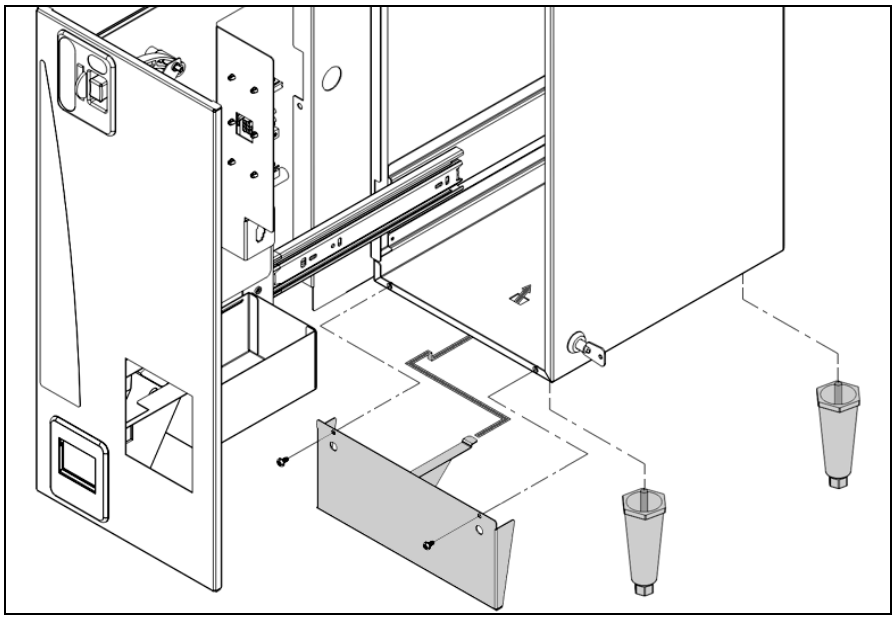
Coinco® MagPro™ MAG52BX
Coinco® BillPro™ BP4BX / BP4SX
MEI® Cashflow VN2600 series

NOTE: A bill acceptor must be installed with a coin changer in order to function.

It is highly recommended that you acquire the **"Operation & Service"** manuals for each of these bill acceptors from their manufacturer. These sophisticated units are highly customizable and may require direct configuration through their own respective software, which is totally independent of the Eccellenza Café software configuration. ***Please note that after the changer software is configured, the machine must be switched off and on again to recognize the changes that were made to the changer software.***

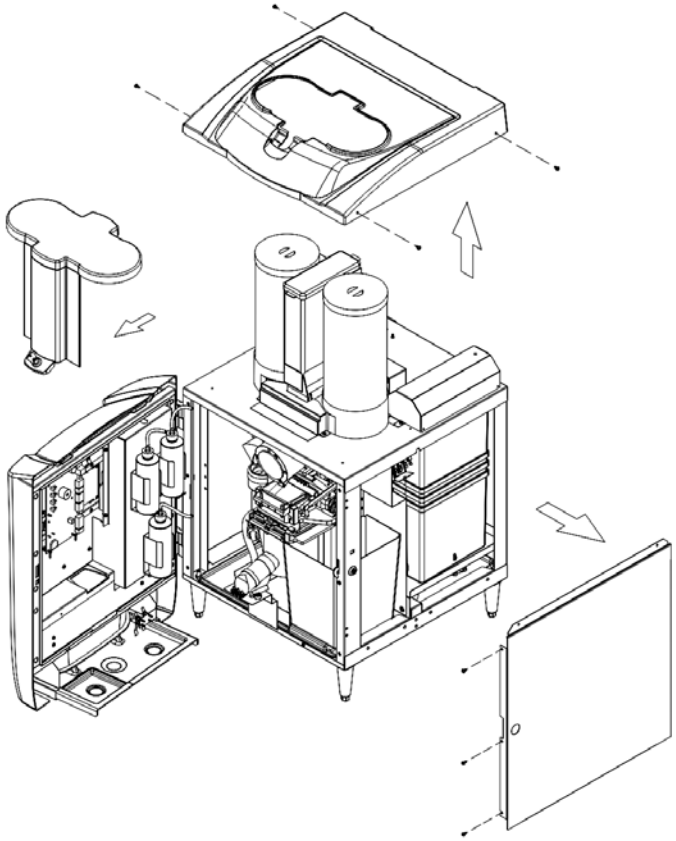
Install the bill acceptor housing skirt and levelers

1. Remove the bill acceptor housing from its packaging.
2. Open the bill acceptor housing door and remove the housing's front skirt and two levelers, which are stored inside.
3. Install the two levelers onto the bottom of the housing.
4. Install the skirt onto the bottom front of the housing and secure it in place with the two screws provided.

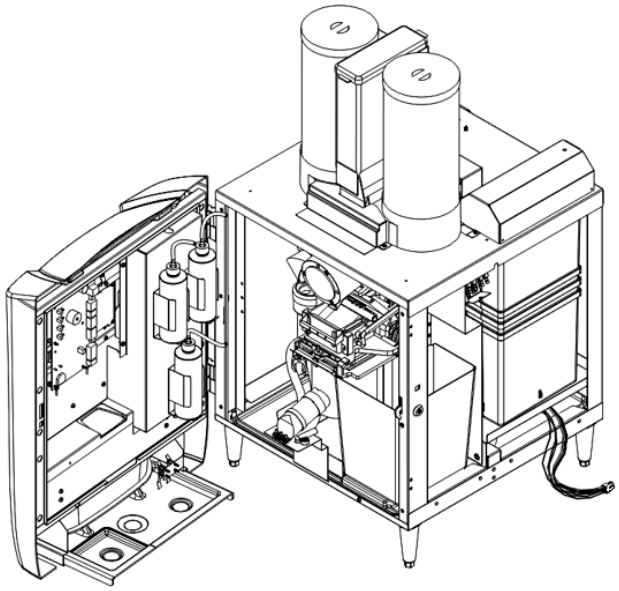


Install the bill acceptor & changer housing

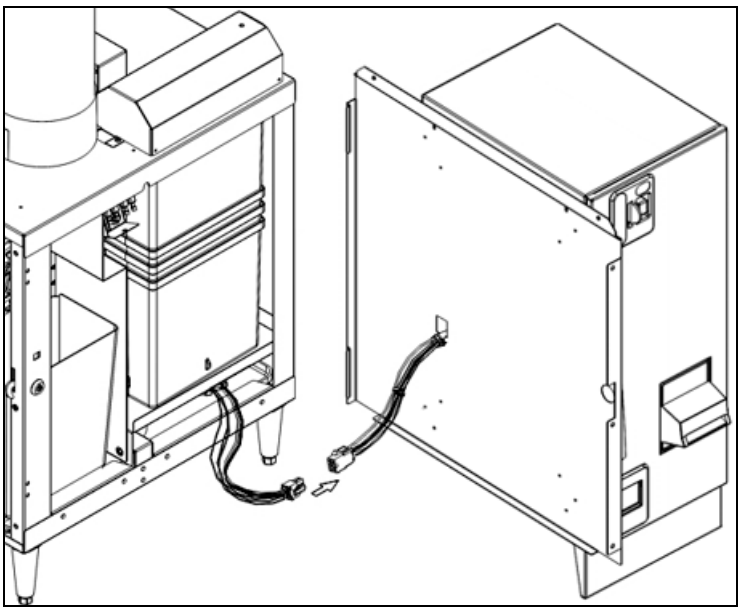
1. With the machine power switched off, unlock and remove the bean dispenser cover.
2. Remove the machine top cover.
3. Remove the side panel. The original right side panel is no longer required as the bill acceptor & changer housing replaces it.

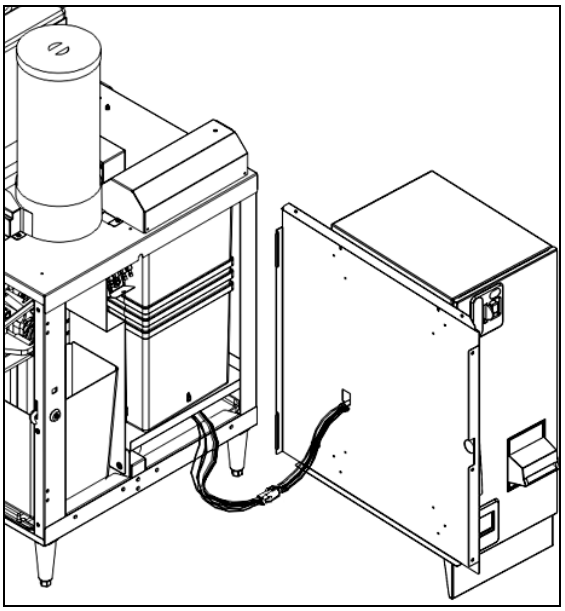


4. Locate the bill acceptor & changer harness in the machine (stored underneath the hot water tank).

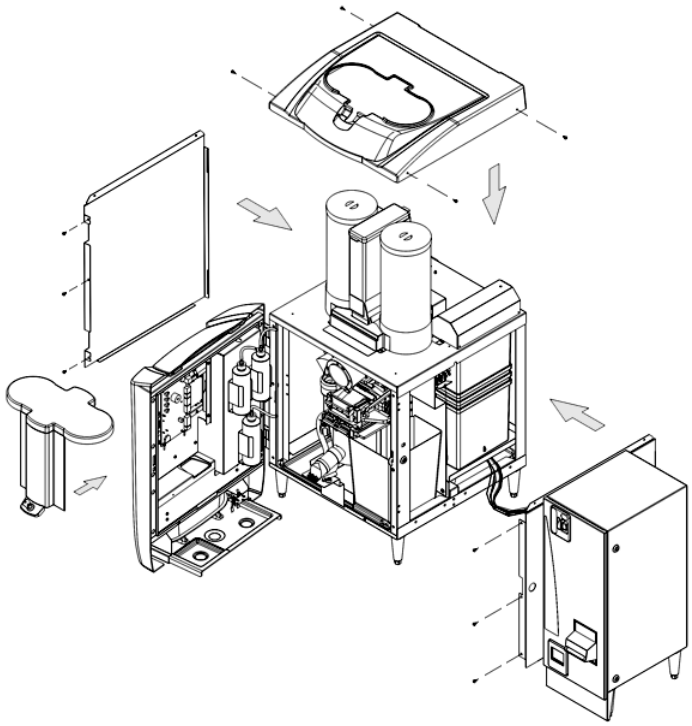


5. Connect the white connector at the end of the wiring harness to the connector on the harness coming from the bill acceptor & changer housing.



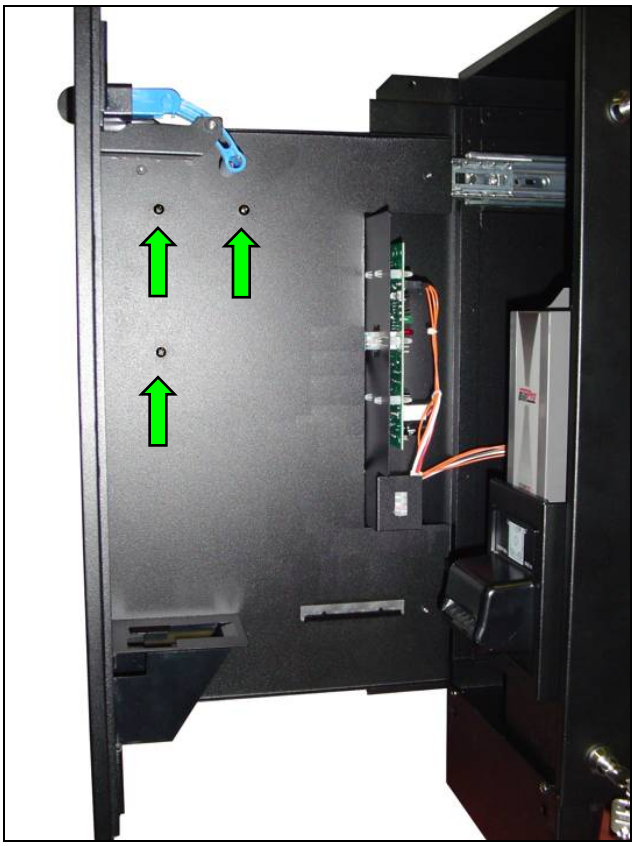


6. Re-install the right side panel (which is now the complete coin changer housing) and re-install the top cover.

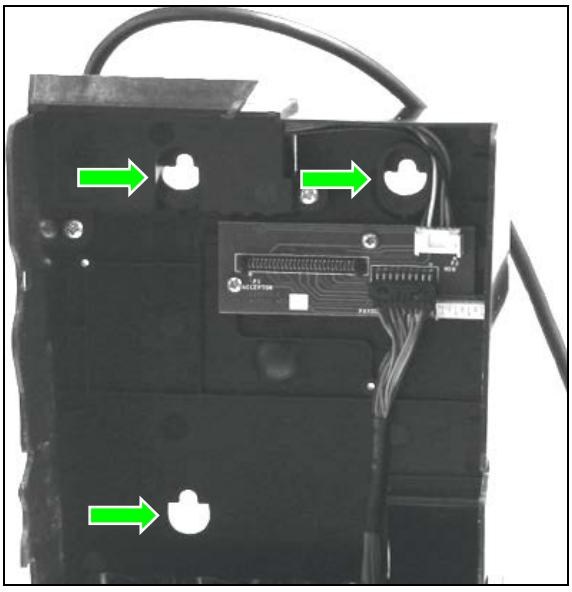


Install the coin changer assembly

1. Unlock the bill acceptor housing and pull the door open.
2. Loosen the three mounting screws on the inner wall of the housing.



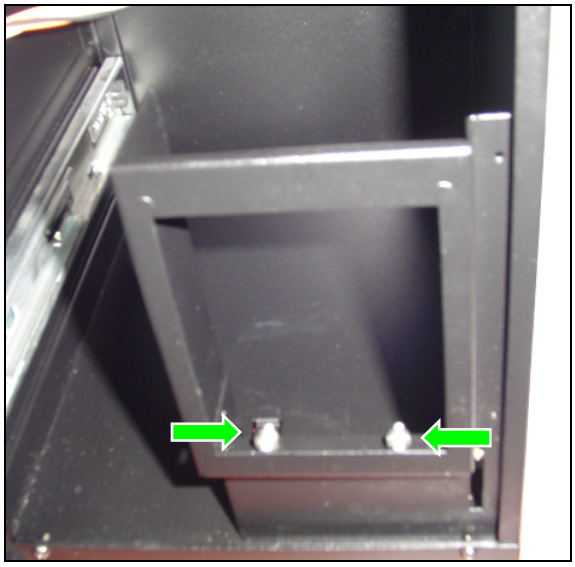
3. Slide the coin changer over the three screws (there are three keyhole slots at the rear of the changer) and push down on it, making sure all three screws are inserted into the slot.



4. Flip open the acceptor portion of the coin changer and tighten the three screws to secure the changer to the housing, and then close the acceptor portion.

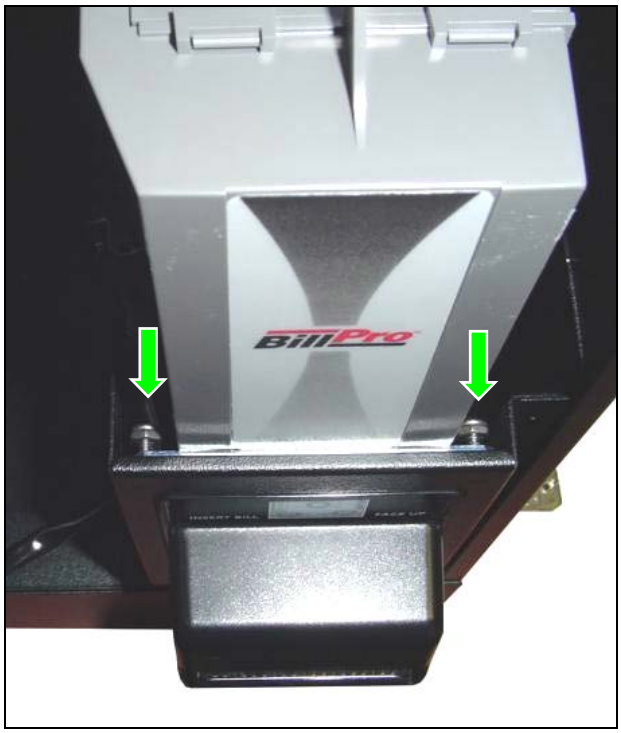
Install the bill acceptor assembly

1. Install the two lower hex nuts, but only about half way onto the threaded posts.



2. Slide the bottom of the bill acceptor onto the two threaded posts and tilt the top of the bill acceptor forward.

3. Align the top of the bill acceptor onto the two upper threaded posts and secure it in place with two hex nuts. Once done, tighten the two lower hex nuts installed earlier.



Connect the wiring

1. Connect the bill acceptor wiring to the small board-mounted connector in the changer housing.

2. Connect the coin changer wiring to the second connector on the bill acceptor wiring harness.

3. Close and lock the door of the bill acceptor housing.

NOTE: The coin changers used in the Eccellenza Café are available in several configurations and can be customized using the changer's own built-in software and hardware. Please consult the manufacturers' documentation for these units for more information.

Test the machine and the bill acceptor / coin changer system

1. To switch the machine from free mode to coin mode, press the forth button down on the interior button panel of the machine (on the inside of the front door).

2. Insert several bills and coins to test the bill acceptor and coin changer systems. The money should be accepted and a credit will be displayed on the LCD screen.
3. Make a beverage selection and press the Start button to prepare the beverage. You should receive change if your credit exceeded the selling price of the beverage.
4. Insert a few more bills and coins, only this time, press the coin reject button on the changer. The money inserted should now be returned to you (in coins) in the coin return cup.

Note

After the settings in the coin changer or bill acceptor have been configured, the machine must then be reset to recognize the changes. To reset the machine, either switch the machine power off and on again, or simply press the **"Set-up"** mode button once to enter and a second time to exit.

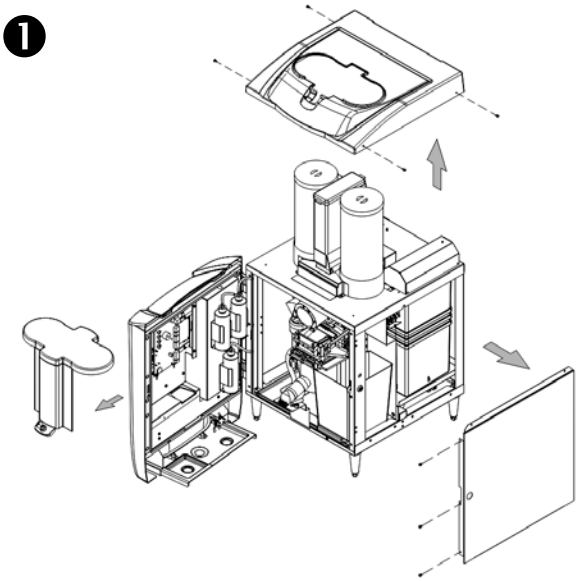
NOTE: If a coin changer or bill acceptor housing is removed, ensure that the wiring harness in the machine is properly secured so as not to interfere with the removal and installation of the machine floor liner.

Installing the Printer System

NOTE: The printer system is no longer available from VKI and is not supported in newer firmware versions. Should you need to install a printer system that you've already purchased, you need to load the older firmware version 1.3 into the Eccellenza Café.

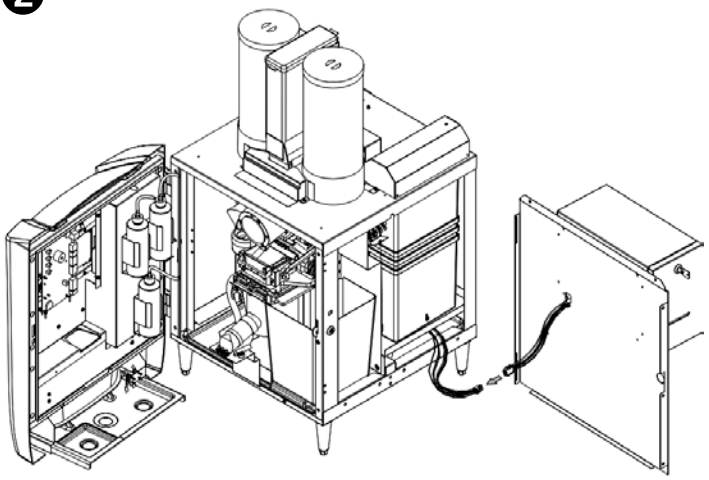
Installing the Printer and Housing

❶



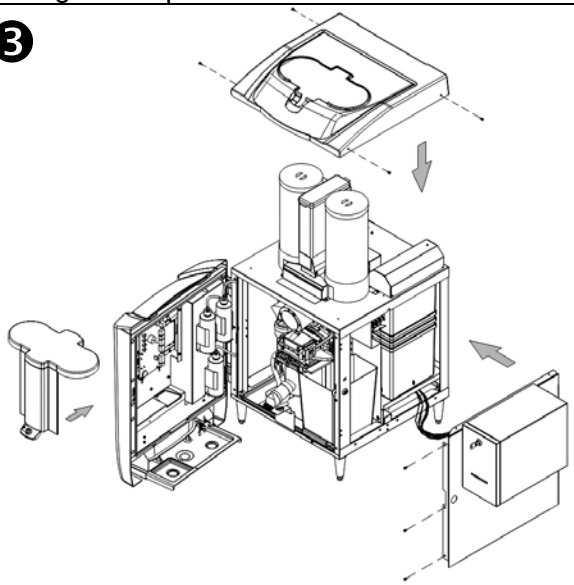
With the machine power **switched OFF**, remove the dispenser cover, top cover and the right side panel.

❷



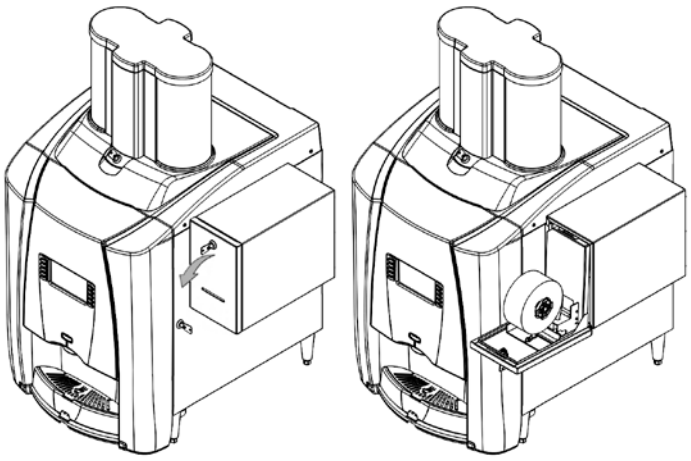
Connect the printer to the interface cable located beneath the water tank.

❸



Install the new right side panel with printer housing onto the machine. Re-install the dispenser cover and top cover.

❹



To open the printer housing door, unlock the housing door and swing it downwards.

❺ Enable the Printer:

⇒ Switch the machine power on and make sure it is in Vending (Coin) mode.

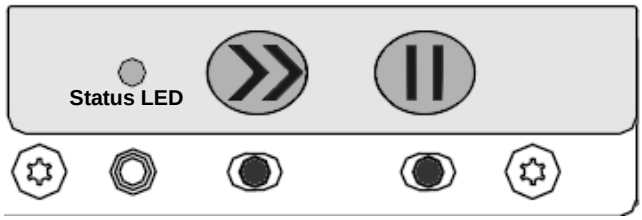
⇒ Press the **ON/OFF** (Online) button on the printer to switch it ON.

⇒ Enter the machine "**Set-Up**" Mode
⇒ Select the "**Set Vending**" menu
⇒ Select "**Vending Device**"
⇒ Select "**Printer**"
⇒ Select "**Activate**"

❻ Set the Clock:

⇒ Enter the "**Set-Up**" Mode
⇒ Select the "**Set Interface**" menu
⇒ Select "**Set Clock**"
⇒ Select "**Set Day**" and set the day
⇒ Press "**Previous**"
⇒ Select "**Set Month**" and set the month
⇒ Press "**Previous**"
⇒ Select "**Set Year**" and set the year
⇒ Press "**Previous**"
⇒ Select "**Set Hour**" and set the hour
⇒ Press "**Previous**"
⇒ Select "**Set Minutes**" and set the minutes

Printer Buttons



» - ***Paper Feed Button***

II - ***ON/OFF Line Button (Power)***

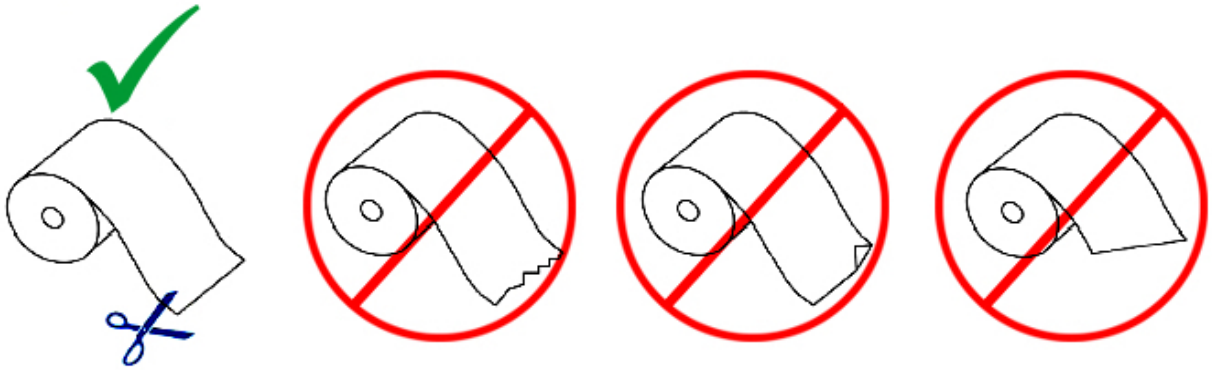
Paper Specifications:

Paper Width (mm):	60 +0/-0.5
Type of Paper:	Thermal roll, outside heat sensitive
Paper Roll Outside Diameter (mm):	Max. 140 (with roll holder in standard position) Max. 100 (with other roll holder positions)
Roll Core Inner Diameter (mm):	12.5 +1/-0
Roll Core Outside Diameter (mm):	≥25
Core Material:	Plastic or cardboard
Paper End:	Not attached to role core
Recommended Paper:	JUJO-AF50KS-E (standard grade, 55 g/m2) JUJO-AF50KS-E3 (high sensitivity, 55 g/m2) Koehler KT100 P (medium sensitivity, 100 g/m2) Kanzan KPW 460 (heat stabilized, 73 g/m2) ***Equivalent types can be used***

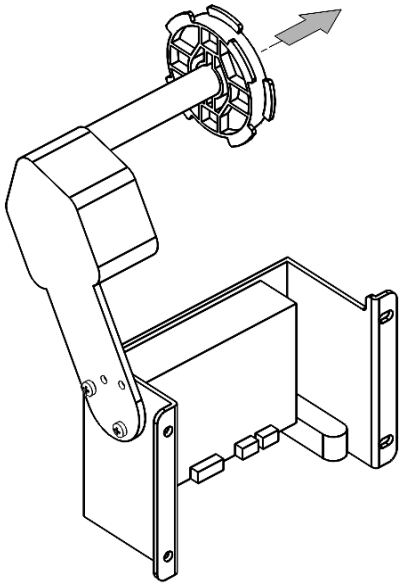
Installing the Printer Paper Roll*

***Thermal printer paper is required – available at office supply retailers (not available from VKI)**

❶ For correct paper loading (automatic or manual), cut the paper at the beginning of the roll according to the following recommendations.

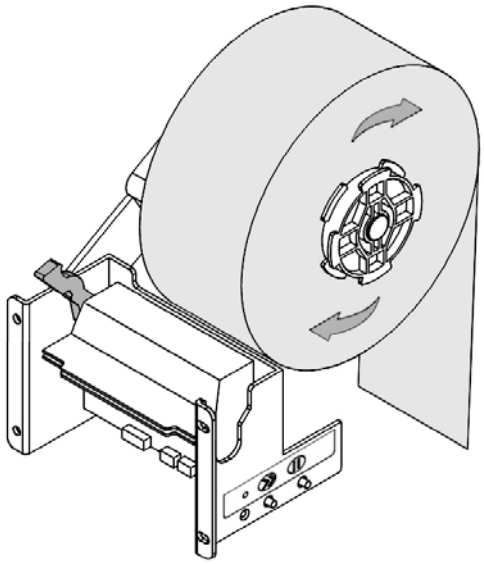


❷



Remove the paper roll retainer from the end of the paper roll spindle.

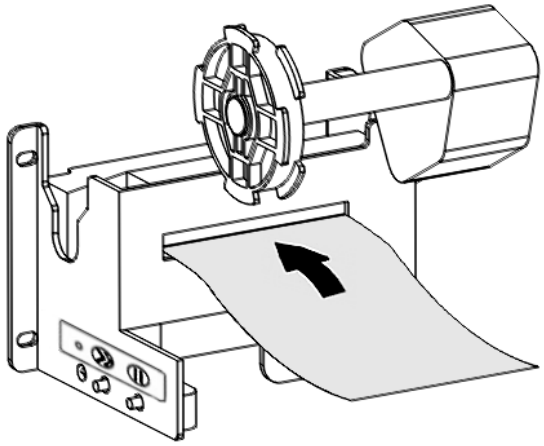
❸



Install the roll onto the spindle and re-install the paper roll retainer.

Automatic Paper Loading

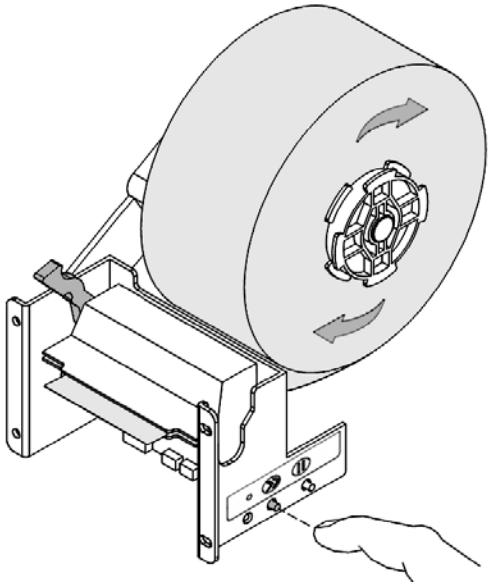
❶



Paper roll not shown to clarify illustration

With the machine power on and the printer power online (II), insert the paper into the printer and then the roller will automatically feed the paper for a few centimeters. The cutter will then cut off the excess paper.

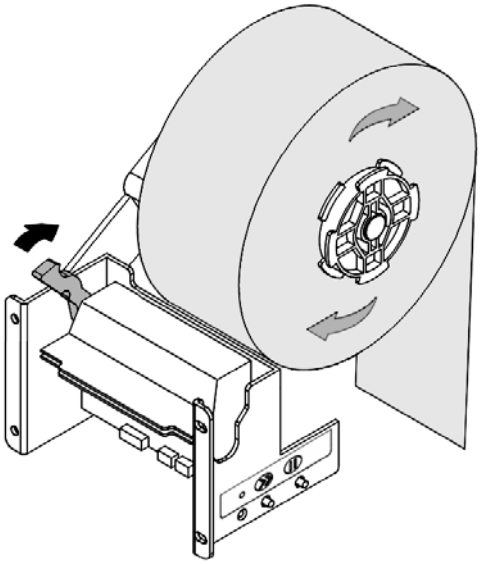
❷



To properly align the paper with the printer guides, press the "**Paper Feed**" (**>>**) button to feed a few centimeters of paper through the printer - this is done to align the paper. Once done, cut off any excess paper and close and lock the printer housing door.

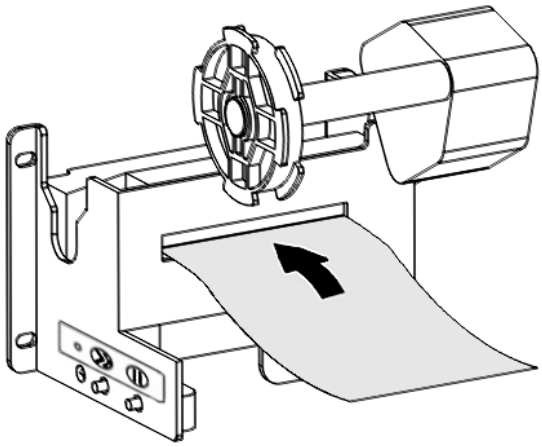
Manual Paper Loading

❶



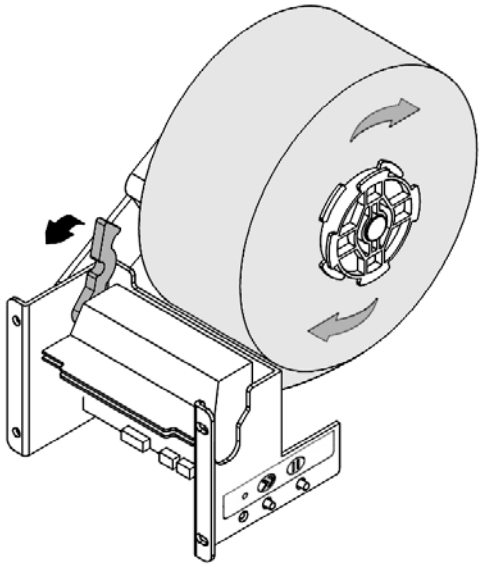
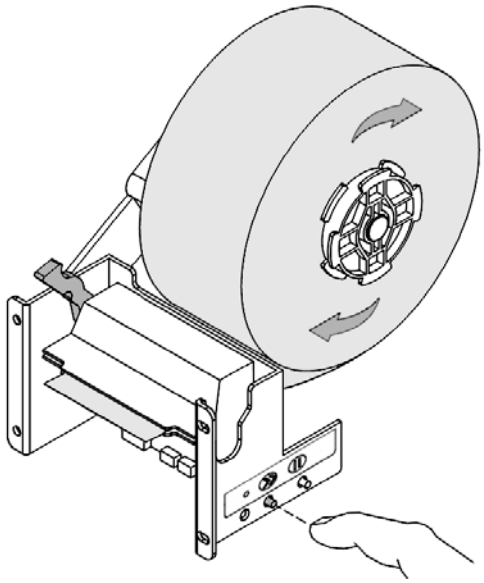
With the printer power off, lift the head-up lever to lift the print head and allow paper to feed through.

❷



Paper roll not shown to clarify illustration

Feed the paper through the rear of the printer towards the front. It will pass between the print head and the roller.

❸	❹
	
Lower the head-up lever to lower the print head onto the paper. Press the **ON/OFF** line (II) button to switch on the printer.	To properly align the paper with the printer guides, press the "**Paper Feed**" (**>>**) button to feed a few centimeters of paper through the printer - this is done to align the paper. Once done, cut off any excess paper and close and lock the printer housing door.

Printer Status LED

The printer status LED indicates the current state of the printer according to the following table.

Printer status	LED blink pattern
Online	Always ON
Offline	1 flash
Paper stop – printer head up or cutter error	2 flashes
End of paper or Mark error	3 flashes
Over/under voltage or temperature	4 flashes
Paper jam Not correct paper path Error condition detected	Continuous flashing

Machine Messages

The following printer related messages may appear on the LCD screen of the machine.

Printer Error – *the printer wiring is not connected.*

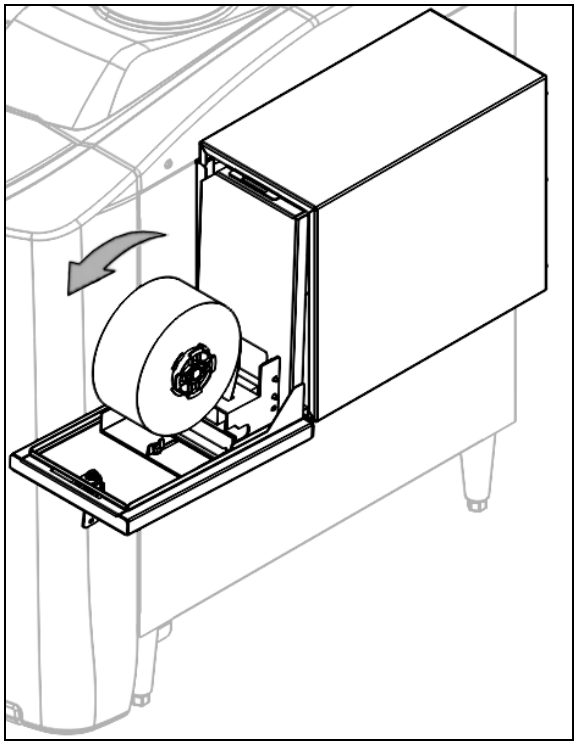
Printer Offline – *the printer is connected, but it is off line (OFF).*

Change Printer Paper – *the paper roll is spent and must be replaced.*

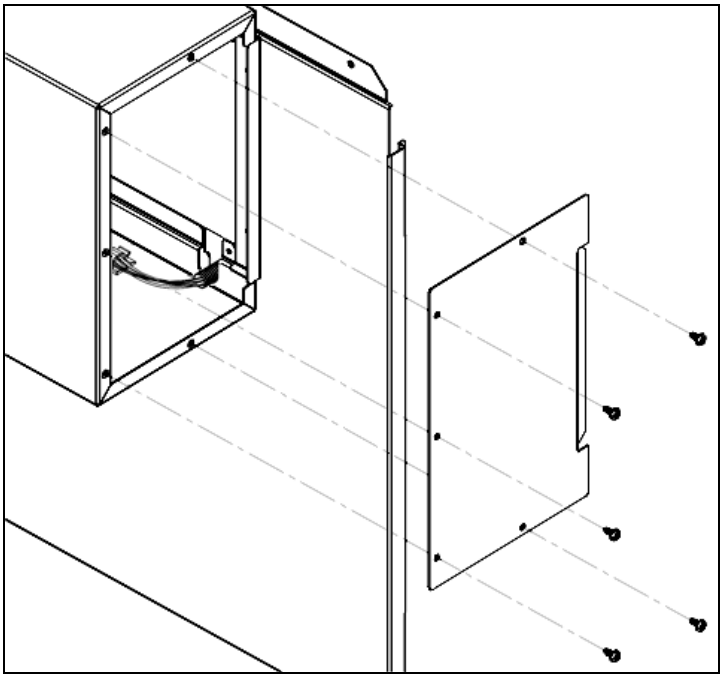
NOTE: If a coin changer, bill acceptor or printer housing is removed, ensure that the wiring harness in the machine is properly secured so as not to interfere with the removal and installation of the machine floor liner.

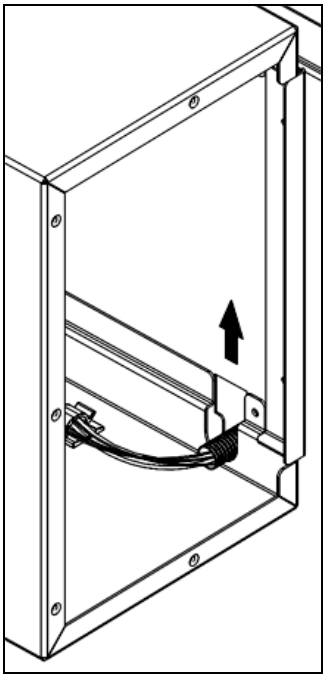
Replacing the Printer Module

1. Open the printer housing door and remove the printer paper roll from the printer unit.

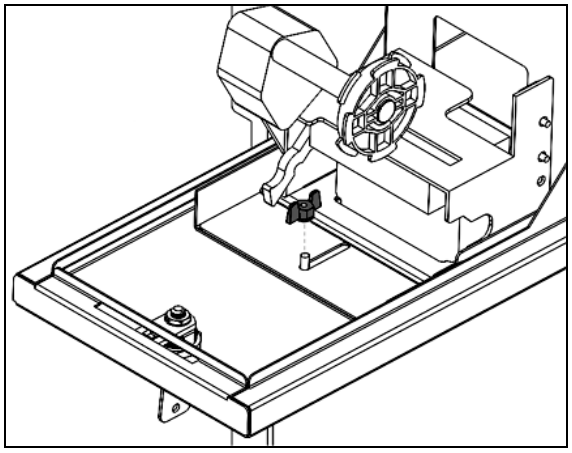


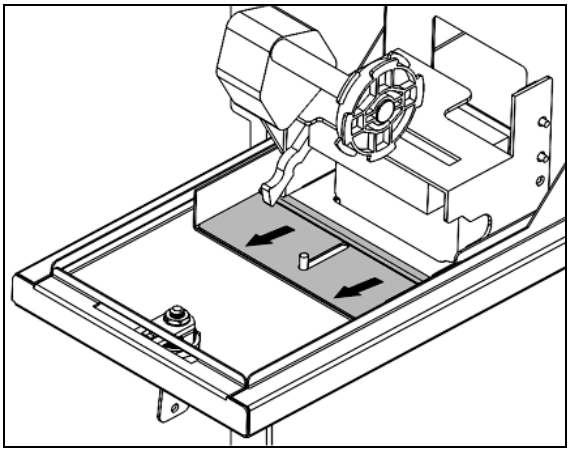
2. Remove the printer housing back panel to expose the wiring harness. To create slack in the wiring, the harness must be unsecured from the housing wall by lifting it up and out of the notch in the metal.

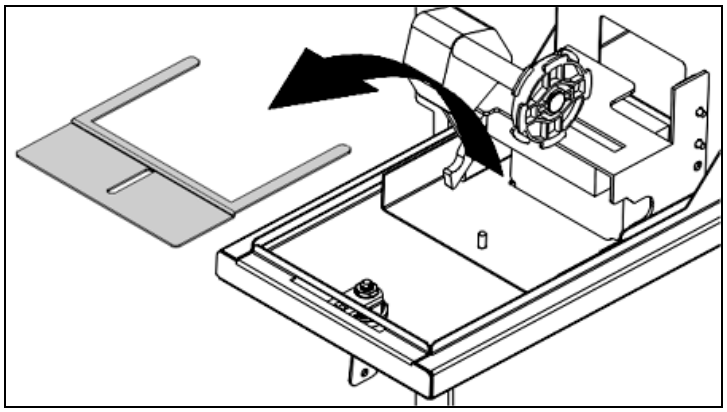




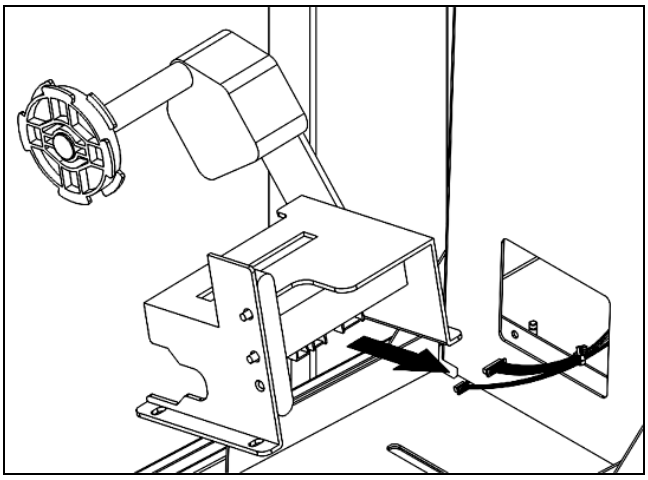
3. Remove the printer lock plate by removing the plastic wing nut that secures it and sliding the plate towards the top of the printer door.



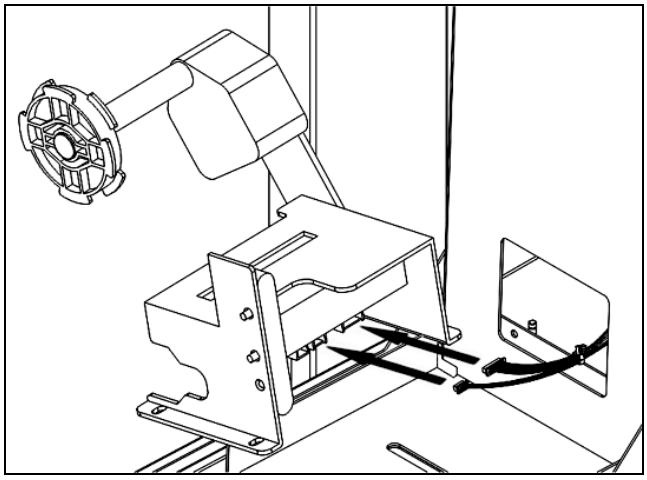




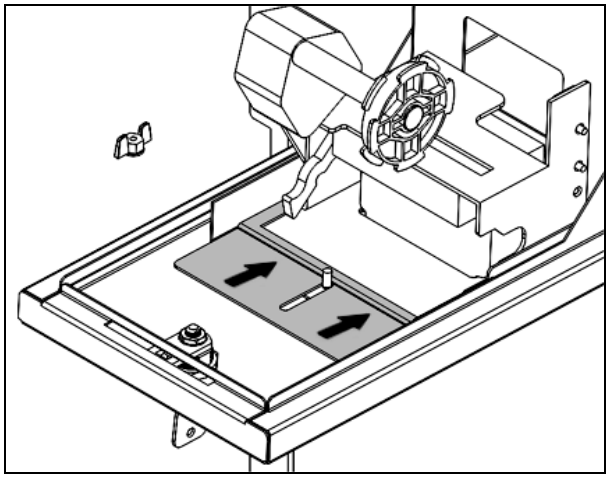
4. Lift the printer off the door and rotate it slightly. Disconnect the two wiring connections at the rear of the printer. The printer can now be completely removed.

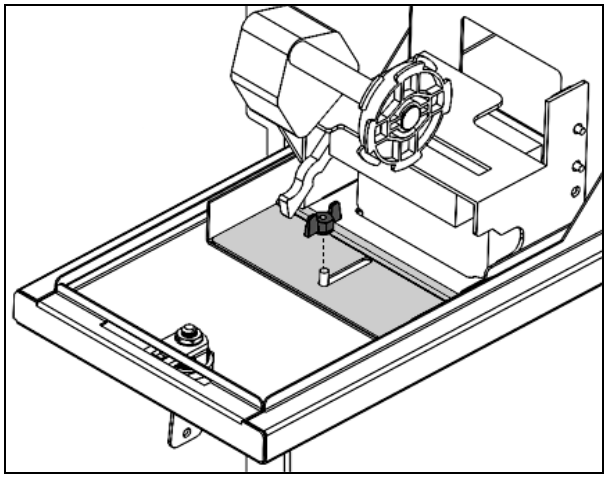


5. Connect the two wiring connections to the rear of the new printer, and properly position the printer onto the door.

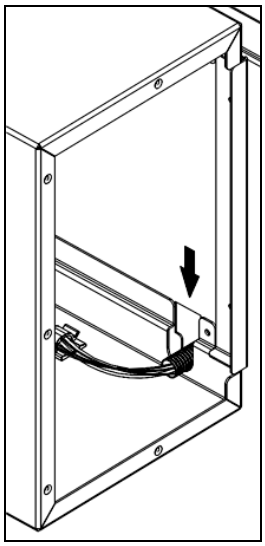


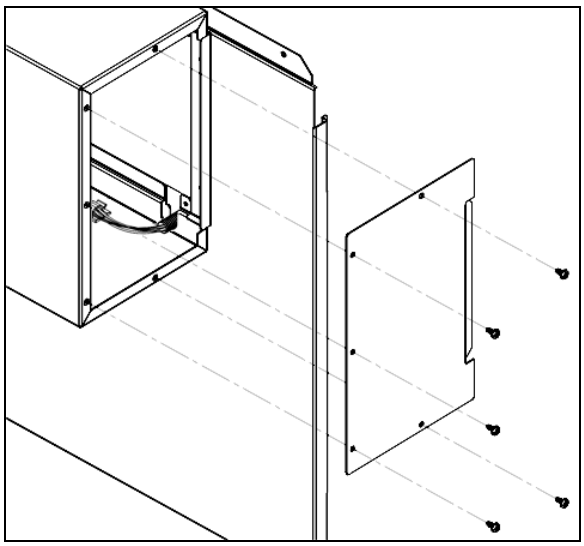
6. Place the printer lock plate onto the printer door and slide it down over the edges of the printer, making sure it locks into the metal at the bottom of the door to secure the printer in position.





7. With the printer door still open, secure the wiring harness to the notch in the metal and reinstall the printer housing back panel.





Error Messages

MESSAGE DISPLAYED	CAUSE	POSSIBLE REMEDIES
Brewer Error	An error has been detected with the brewer.	• Verify the brewer motor wiring. • The brewer may be jammed. Repair or replace the brewer. • The brewer motor may be jammed. Repair or replace the brewer motor.
Brewer Home Error. Press Start to find home	The brewer is not in the home or starting position.	• Press "**START**" (the **TEXT BOX** at the top of the screen) to cycle the brewer. • The home switch may be defective or needs to be re-adjusted or cleaned. • An electrical connection to the brewer home switch is faulty. • The brewer brake may not be working properly. Clean the brake or replace the brewer motor.
Button Error	An error has been detected with one of the interior buttons.	• An interior button may be stuck in the pressed position. Try to loosen the jammed button. • Firmware for the Eccellenza Café may have been mistakenly downloaded into the Eccellenza Express.
Call Key Operator	The cashbox in the changer unit is full ***(more than $220)***.	• Empty the cashbox and reset the Key Operator message.
Can Communic. Error	A communication error is present between the control board and expansion board.	• Verify wiring connections to the expansion board, control board, and LCD display. • The expansion board may need to be replaced.
Change Printer Paper	The paper roll is spent.	• Replace the paper roll.
Check Water Level Probes	The water tank is overfilling.	• Clean the water level probes. • The water temperature may be too high – lower the temperature. • Inlet valve may be leaking – replace inlet valve.
Cup Tray Overflow Error	The cup tray on the front of the door has overfilled.	• Remove and empty the contents of the cup tray. • Inspect the machine for a leaking outlet valve.
Expansion Board Error	An error has been detected with the expansion board.	• Verify the wiring connections to the expansion display. • Replace the expansion board.
Factory Data Error	The Factory Settings file you are transferring is corrupt.	• Get an updated Factory Settings file and load it into the machine.

MESSAGE DISPLAYED	CAUSE	POSSIBLE REMEDIES
Factory Settings Version Error	The version of Factory Settings is not compatible with the machine model.	• The Factory settings file you are attempting to load is not the correct version for the firmware in the machine. Load the proper version of the Factory Settings file.
Filling Water Tank	The water tank is filling.	• Normal operating message and does not indicate an error.
Finding Brewer Home	Brewer is cycling to find the home (starting) position.	• Normal operating message and does not indicate an error.
Heating Water	Water inside the hot water tank is heating.	• Normal operating message and does not indicate an error.
LCD Error	An error has been detected with the LCD display.	• Verify the wiring connections to the LCD display. • Replace the LCD display.
Money System Error	The coin changer or bill acceptor is not being detected.	• Verify the wiring connections at the control board and inside the changer unit. • Replace the defective coin changer or bill acceptor.
Overflow Error	A water overflow has been detected.	• Empty and dry the overflow/cup tray. • Verify the water level probe adjustment. They may be set too high allowing too much water into the tank. • Water level probes may need to be cleaned. • Inlet valve may be leaking, constantly allowing water to enter the tank. Replace the inlet valve. • The water in the tank may be overheating. Lower the water temperature setting.
Overheat Error	The water tank is overheating.	• Check the temperature settings in the set-up. • The temperature probe may need to be replaced.
PnB not Detected	The control board is not being detected.	• The USB cable is not connected to the control board or the expansion board. Verify the connections.
Port J10 Not Detected	Wiring harness is disconnected from port 10 on the control board.	• Reconnect the wiring harness to port 10 on the control board.
Port J23 Not Detected	Wiring harness is disconnected from port 23 on the control board.	• Reconnect the wiring harness to port 23 on the control board.
Press Start to Find Brewer Home	The brewer is not in the home (starting) position.	• Press "**START**" (the **TEXT BOX** at the top of the screen) to cycle the brewer. • If the brewer cannot detect the home position, check the brewer home switch & wiring, the brewer motor, and the brewer.

MESSAGE DISPLAYED	CAUSE	POSSIBLE REMEDIES
Printer Error	The printer wiring is not connected.	• Connect the wiring to the printer module.
Printer Offline	The printer is connected but it is offline.	• Press the ON/OFF line button (power) on the printer.
SPI Eeprom Error	No communication to the options board.	• Check the wiring to the board. • Replace the options board.
Tank Not Heating Error	The hot water tank is not heating.	• Check the 15 amp fuse. • Reset the thermal cut-off switch. • Verify wiring to heater element. • Check heater element.
Temperature Probe Error	The electronic temperature probe is not working properly.	• Replace the temperature probe.
Verify Powder 1 Level	Powder 1 dispenser is low and requires refilling.	• Refill the dispenser for powder 1. • Reset the "**Refill**" message for the **Powder 1** dispenser.
Verify Powder 2 Level	Powder 2 dispenser is low and requires refilling.	• Refill the dispenser for powder 2. • Reset the "**Refill**" message for the **Powder 2** dispenser.
Verify Product Level 1	Coffee 1 dispenser is low and requires refilling.	• Refill the dispenser for coffee 1. • Reset the "**Refill**" message for the **Coffee 1** dispenser.
Verify Product Level 2	Coffee 2 dispenser is low and requires refilling.	• Refill the dispenser for coffee 2. • Reset the "**Refill**" message for the **Coffee 2** dispenser.
Verify Waste Bin Level	Waste bin may be full.	• Empty the contents of the waste bin. • Reset the "Waste Bin" counter.
Water Source Error	Indicates a problem with the main water supply not getting to the water tank.	• At this point, the water tank is not full and this message has to be reset. To reset it, switch the power off and on. • If the problem persists, check all components on the water line (water filter, tubing, fittings, etc.). • Check inlet valve to make certain it is functioning properly. • In the case of a temporary disruption with the water supply, the coffee maker will reset itself after every hour.
Whipper Error	An error has been detected with the whipper.	• The whipper motor may be jammed. Clean the whipper assembly. • Verify wiring to the whipper assembly. • The whipper motor assembly may need to be replaced.

Updating Firmware and Support Files

Detailed instructions for updating the Eccellenza Café firmware and support files (Factory Settings, Text and Image) can be found in VKI Publication #201455-001.